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ADVANCED MANAGEMENT

Quarterly Journal

The Society for the Advancement of Management

Science at the Door of American Politics

Planning—The Issue of Scientific Management

The Pattern of Executive Leadership

Cooperative Training—Dare Management Try It?

The Changing Position of Foremen

December, 1945 Vol. X, No. 4

In Two Sections—Section I

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Comment

PLANNING for reconversion policies is having to come after the need rather than before, for reasons which are complicated. But the approach to the crises of the hour centering on problems of the interrelations of wages, hours, costs, prices and profits does not have to be improvised even now. The great need is for disinterested leadership and for a more general disposition to see the issues in terms of their factual components more than in terms of special group interests which too exclusively hold the center of the stage in strategy, in utterance and in insistence on the part of one or another parties to the dispute.

Hopefully there are those in management who can rise above their interest in corporate advancement to look at all factors in the equation before prejudging an answer.

What are the factors? From the point of view of the individual worker being laid off from a war plant, he confronts a reduction from 55 to 60 hours to around 40 hours a week; and he also received a time-and-a-half rate of pay for those hours over 40 and often with at least one upgrading of position to a higher rate of pay. The ensuing reduction in take-home pay may be as severe as 30%. Along with this reduction he finds also an increase of living costs of around 30%. He is between the upper and the lower millstone and his union is therefore demanding for him as much as a 30% increase in hourly rates.

But from the corporation's point of view there may well be a ceiling price still in effect and wage increases without price increases look unreasonable or at least appear to promise a lessened rate of profit unless taxes are reduced.

On the other hand the public has been led to believe that the rate of production as well as the volume has increased markedly during the war. Technological advances may account for an accelerated rate of output which may well have meant a lessening of unit costs and of unit labor costs of the order of 15% to 30% at least. The public also believes that many war producers dealt liberally with themselves in setting aside reserves for obsolescence, depreciation and replacement—all this over and above a profit showing in 1943, 1944 and 1945 which even after taxes has been adequate if not liberal, especially since it came out of operations required by the war on presumably patriotic motives.

It all adds up to requests on the one hand for higher hourly rates for less hours of work per week to offset reduced hours, to fears on the other hand that profits are threatened in a serious way and that unit costs may rise.

What wage increase, the public must ask, will sustain a defensible standard of living and in the aggregate give promise of high level employment—and at the same time not impair the profit incentive? To what extent, it is also being asked, are existing reserves justified and current rates of profit requisite or defensible? To what degree is there a new margin of safety for management in lessened unit costs enabling profit margins to be held constant while prices are held as at present without increases?

The answers to these questions are not the same for all companies nor for all industries. Yet it may as a practical matter of national labor policy be difficult to have these issues resolved on a basis of specific instances if the issues have to be handled at the level of federal political action. It may be, however, that if and when the pressure for the resolving of these issues does come at the national and political level it will be because the immediate parties —unions and employers—have shown no adequate disposition to sit together in conference until they have composed their differences. Appeal to a third party, even when only by default, is usually a confession that a fight is preferred to a conference table. And the suspicion arises in the relatively uninformed mind of the general public that certain groups may prefer to make the tensions of the transition the excuse for what is in essence a smear campaign if not one for an actual liquidation of continued collective action.

We shall come through this troubled period into a new era of unparalleled prosperity. Actually account will be taken gradually of the several interacting factors. And a new basis of accommodation will be arrived at. But that this will occur without a piling up of ill-will, of mutual recrimination, of public hesitancy in support of whatever proves to be the more fair course of action, is the deeper misfortune.

The economics of the transitional process will adjust themselves in terms of a new status of wage-earners and of their compensation in relation to an increasingly agreed-upon objective of high-level employment. This may conceivably require that the next dynamic equilibrium attained within our system will be with a lower profit rate. Prophecy here is precarious.

But on the other phase prophecy is easier and more depressing. It would seem that the reconversion period is fomenting mutual distrust between organized workers and organized employers which it will take a long time to offset.

The best asset of our particular economic system is the good will and the working spirit of those who work it and work in it. It is a pity that our planlessness is paying out in states of mind among managers and men which do not make for harmony and productivity in the days just ahead.

ORDWAY TEAD.

Science Knocks at the Door of American Politics*

By MORRIS L. COOKE

Consulting Management Engineer, Philadelphia, Pa.

SCIENTISTS will be the first to admit that all is not well in the current relations between science and politics. There is little of understanding on either side. To put it bluntly, the politician pretty largely ignores the scientist and the latter all but despises the politician.

Science, and engineering too, are at an all-time peak performance. In fact our technological advance has become so rapid that unless we drastically alter some of our social and political concepts and the institutions through which they are given expression, technological achievements by their misuse may actually be our undoing. In spite of glamorous accomplishments of science, it is apparent that for the greater part of humanity we have the specter of dire and growing want in the midst of potential plenty. For fast-moving progress along a broad front, the active and comprehending co-operation of politicians is absolutely requisite. So if there is anything which engineers and scientists can do to woo and win the politicians, the doing of it will have tremendous social significance. But it will be futile to knock at the door of American politics unless we come equipped with both understanding and sympathy. Some common ground between the two areas must be found. This, however, should not be too difficult.

Whether we like it or not—and some of us technologists don't like it at all—we are part and parcel of a community the life of which grows more complicated day by day, with increasing interdependence of the various factors and an ever-mounting toll which the public pays for inefficient or antisocial management of these public and quasi-public affairs.

Only to suggest their range—any complete listing would be impossible—I suggest the school system, civil liberties, labor unions; social agencies such as housing, hospitals, and boys' clubs; the co-operative movement, legislation and its improvement; and last but by no means least, party politics. From all this the normal scientist and engineer holds himself quite aloof. Of course there have been—and doubtless still are—a great many exceptions to this general statement as, for instance, Civil Engineer Louis R. Ash of whom the *Kansas City Star* said: "Every genuine movement for municipal progress had his support. Some have been successful and some have failed, but Mr. Ash never lost his zeal for better standards of government. In his death the city loses an individual backer in courageous civic efforts."

But even if there were thousands within our professions community-minded and active in community affairs, at best it would represent a negligible percentage of the total.

The rather invidious term "ivory tower" is largely a carry-over from the days when advances in human knowledge resulted from the labors of individuals isolated in most ways from the world outside their monastic cells. Notwithstanding the fact that science and engineering steadily acquire a larger place in our modern civilization, they all but unknowingly practice a form of isolationism which retards social progress and keeps us in many ways from realizing on the American dream of Thomas Jefferson—"a people living in comfort on the fruits of their industry." These callings are still pursued in an atmosphere of fairly complete detachment from that outside world wherein popular support for myriad causes rises and falls by turns and in so doing maps the course for the future of mankind. The modern "ivory tower" bears about the same relation to its ancient prototype as the Pentagon does to a one-time Army post in the Indian country. The quiet searcher after truth of ancient times has been succeeded by a personnel numbering hundreds of thousands included in a complex of technical organizations and organizations within organizations, the members of which contribute their best to thousands of discussions and publications, some of which are devoted to pinpoint specialties.

What is the basis for this holding aloof from the hurly-burly of American life? Certainly some of it—especially on the part of scientists—comes about through following a tradition. The student historically was a recluse. Then it is much more comfortable to live and move and have your being in 'a world where the fact stays put, recurs, and can be weighed and meas-

*An address delivered at a Conference of the Arts, Sciences, and Professions in the Postwar World held at the Hotel Waldorf-Astoria, New York, N.Y., June 22–23, 1945, under the auspices of the Independent Citizens' Committee of the Arts, Sciences, and Professions. Mr. Cooke acted as chairman of the Science and Technology Panel. This address also appeared in MECHANICAL ENGINEERING, vol. 67 no. 9, September 1945.

ured,' even though "most of the activities of men are carried on in a world of uncertainty."[1] Then if one is sensitive to criticism, answers derived by means of slide rules and test tubes certainly provide a defense for which one need not apologize. By contrast, statesmen—or politicians if you want to call them that—are apt to respond rather blithely to criticism. An Alfred Emanuel Smith, or either of the Roosevelts, or Gifford Pinchot, or Winston Churchill, if told of criticism, would quite likely take it as a sign of accomplishment, and smiling, possibly remark, "We seem to be getting some clothes out on the line."

Where Are the Engineers?

Only recently have we begun to have anything approximating a statistical demonstration of the attitude of scientists and engineers toward the great world of men and affairs lying outside the boundaries of their professional interests. Among 200 top grade members of the major engineering societies living in a large eastern city, only four were found to be associated with the management of its quasi-public social activities, such as hospitals, family welfare, symphonic music, housing, and homes for the aged and children. Among another 200, only two were associated with the annual welfare drive for their financial support.

Among over 100 rather outstanding citizens associated with the management of the American Civil Liberties Union, there is one engineer and one scientist. Among over 300 scientists and engineers belonging to a distinguished social organization choosing a considerable part of its membership with some care from among these groups, only five were found to be associated with social agencies.

Notwithstanding that peace is the world's most absorbing concern, the lists of those responsible for the management of local and national agencies seeking to promote the cause of peace indicate almost no participation by engineers or scientists. Among the nearly 200 names on the board of directors and the National Committee of Americans United, our most representative and inclusive organization working for peace, no member of either group is to be found.

An even more significant indication of our absorption in our own technical affairs is the fact that among over 40 organizations selected to aid our Government during the present United Nations Conference at San Francisco, "scientific and engineering groups are totally absent." These groups comprise religious, educational, labor, legal, agricultural, racial, business, and social organizations, and the latter include Rotary, Kiwanis, and Lions. There was one engineer and one scientist among about 400 individual consultants and advisers officially chosen from among a wide variety of callings, seeking to do their bit at San Francisco.

One wonders whether Maurice Maeterlinck with poetic intuition may not have had this situation somewhat in mind in his description of "The Kingdom of the Future" in his beautiful fairy play, "The Blue Bird." The children who are yet to be born are milling around in the halls of the Azure Palace, the doors of which open out upon actual life and the quays of the Dawn. Just as one contingent of these youngsters is about to shove off, the whole assemblage is startled as Father Time calls out: "Where are the Engineers?"

To be completely fair to these distinguished professions it should be stated that there would be no holding back should their assistance at any time be requested by duly accredited public agencies. This has been repeatedly demonstrated during the course of the war. Unfortunately it is also true that there have been instances—some of them quite recent—where we have taken the initiative in tendering our good offices and they have been declined. Frankly, as professions we are not held by those in the seats of authority to be so conditioned through contacts with the great big non-technical world as to make us available for a wide variety of services to the public. One is led to ask whether scientists and engineers realize the size and pulsating character of the world which lies entirely outside their own particular technical fields.

Twenty years ago a committee of the Iowa Engineering Society said that the only effective way for engineers to get public recognition is for the individual "to adopt the viewpoint of a citizen and work as a citizen of his community. . . . So long as the engineer confines his efforts wholly to his technical work as an engineer, the public cannot know much about him."

In commenting on this statement the *Engineering News Record*[2] said:

> When the public has a satisfactory experience with one engineer as a fellow citizen it is inclined to think well of engineers in general; when it sees one engineer achieve leadership in his community, it is inclined to look upon the engineer in the abstract as having the stuff of which leaders are made. The committee is on sound ground also when it expresses its belief that some of the qualities of leadership, now potentially in engineers as a class, must be developed and strengthened before they will be ready to play their full part in public affairs. That development can come mainly through development of the

[1] "Education for Responsible Living," by Wallace B. Donham, Harvard University Press, Cambridge, 1944.

[2] Issue of April 26, 1923.

individual, and that in turn can come best through his individual participation in public affairs as a citizen possessing peculiar abilities to be of service to his fellows.

Evidently we need a more extended companionship. To bring it about should be our passionate concern if we are to live adequately in these fateful times.

Promising remedial measures must be based, among other considerations, on an accurate understanding of the engineer's and scientist's attitude toward politics and politicians. To avoid any impression that I am an apologist for what is untoward in American politics, I may say that on frequent public occasions since coming of voting age I have poignantly bemoaned its low moral tone. I bitterly resent the fact that what Lord Bryce said of my home city 50 years ago is still essentially true: "The most dangerous enemies of reform have not been the ignorant and the poor but men of wealth, of high social position and character." And yet, having had the most ample opportunity to observe politicians at all levels in action, I am disposed to agree with Claude Bowers, distinguished editor, biographer of Thomas Jefferson, and now American Ambassador to Chile, in feeling that on the average they are no worse than other men, perhaps of a somewhat higher caliber.

Politics—The Base of Our Social System

Our engineering and scientific groups I believe hardly realize that our political hierarchy including township, county, city, state, and national government is the basic structure—good, bad, or indifferent as the case may be—which supports our whole social system. Our groups look upon government rather as excess baggage which possibly may come in handy in emergencies. The engineer, salaried employee as he usually is, is tempted to take the big business point of view which encourages the public to attach undue significance to voting and to other political devices, while back of this front those with no public responsibility pull the vital strings.[3]

On the other hand, the true devotee of science obtaining from his work a large measure of release from normal worries—comfort somewhat comparable to that afforded by religion—would like to ignore politics completely, were it not for the necessity of securing appropriations from time to time. I suggest we struggle to accept as wholeheartedly as we can our political system on the same grounds that Thomas Carlyle gave for Margaret Fuller's acceptance of the universe, "By Gad, she'd better."

A further hurdle appears to lie in our attitude toward the individual politician. He is much more nearly like ourselves than we think him to be. Allowing a bit for possible differences in the educational level, the politicians with whom engineers and scientists would normally co-operate to mutual advantage will doubtless show about the same variations in integrity, understanding, and desire to be useful as are usually found either on the campus or in a business concern. "Most politicians have to live in a goldfish bowl. Their acts can be scrutinized, criticized, and often are misrepresented in a fashion that would give the average businessman a nervous breakdown. The politician's mistakes stand out; his virtues are apt to be forgotten."[4] In spite of all the difficulties, the great causes represented by science and engineering will be advanced if as many individuals in these groups as possible get to know and keep close to one or more public officials. This will constitute a major stroke in breaking down the bulkhead which separates science and politics. It is because the scientist today is essentially without access to the political mentality that many messages full of deep meaning for the people never reach the action stage in any large way. There are questions as to soil and water conservation, health, nutrition, industrial relations, comity between nations, higher and wholly feasible standards of living, necessity for fundamental physical and biological researches upon which there is practically no difference of opinion among us, but on which public action lags.

Social Ends Advanced by Social Means

With no desire to leave a word unsaid in deprecating the illicit in machine politics, still it must be admitted that the machinery itself is necessary and can be used and is used, more frequently than not, to advance desirable social ends. Very few public causes get beyond the dream stage until there has been created an organization to push them. Even the continuity of policy in a college faculty is aided and abetted by line-ups sometimes not visible to the naked eye. So our duty as citizens is not to tear down political machinery but rather to do our part—usually a very little part—in making it function in a socially desirable manner. Too many of us are dissuaded from doing the little we can in this and other important matters—voting, for

[3] For instance, Lammot du Pont writing to Lord McGowan, head of Imperial Chemical Industry (Great Britain) in July, 1933 said: "If any legislation on international agreements is brought about which affect these I.C.I.-du Pont relations, I am sure we will be able to adjust ourselves so as to get the continued benefit of our agreement." This was in answer to a letter from Lord McGowan urging that something be "done to insure that no prospective political or legislative action on the part of governments" be allowed to change the relations between the two companies.

[4] *Philadelphia Record*, June 3, 1945.

instance—by this realization of how relatively unimportant our effort may be in the whole picture.

Important as is the discriminating evaluation of the American political system and of the individual politicians who operate it, even more so is the task of bringing scientists and engineers actively into the life and service of the community along lines having little or no relation to their professional activities. In the most recent authoritative study of the engineering profession[5] we are enjoined in one place "to advance philanthropy, man welfare activities, serve as trustees, and lead civic movements," and in another, to make "creative contributions as statesmen, thinkers, artists, philanthropists, and leaders of social movements." Another recognized authority tells engineers to serve "by expert counsel in their field by participating as civic leaders in community enterprises."[6]

The basic idea here appears twofold: First, that our specialized engineering knowledge is to be the basis of our services; and, second, that for some unexplained reason we go into places of leadership without serving in the lower ranks first. Should these pronouncements be shown to a typical American politician he would probably remark with complete indifference either "So what?" or "How come?" I am reminded that my mother was anxious for me to enter the ministry. But I doubt if she ever pictured me as a divinity student, candidate for orders, deacon, or plain minister. What I think she really wanted in the family was a bishop. Somebody has got to operate the community with its modern complex of interests and activities, and this whether the community under consideration be a small village or the nation as a whole. With the problem clearly before them, scientists and engineers will not want to claim exemption. They do not want to be classed as civic conscientious objectors.

There are some fairly unimportant tasks, both public and nonpublic, to be performed in the adequate conduct of our modern communities, made possible so largely through the ministrations of science and engineering. For instance, on the local political side someone has to pull doorbells in order to get out the vote. Officials and watchers are needed at the polls. Sooner or later anyone who has an ambition to lead in high political place had better stand for a minor local office. There is a might of education to be obtained in so doing. There is an old saying that an Englishman can never become prime minister unless he has carried his home election district. To carry on a campaign for even a minor change in legislation frequently requires the devoted service of a lot of people in minor capacities, sometimes carried on through many years. But this is a part of the price we pay for our highly prized democracy.

In the surgeon's code, laziness is made unprofessional on the ground that a lazy surgeon cannot keep up with what is known, and without this knowledge his best service to the patient is impossible. Somewhat similarly I believe we should have in the code of the scientist and the engineer provision that a practitioner of either calling must perform some community service not related to his profession. This would be on the ground that both scientists and engineers must be good citizens and this involves some assumption of community responsibility. Through appropriate channels we could very quickly pass the word to the world beyond our own absorbing professional interests that we seek outlets for whatever community-mindedness there is among us. I would expect that the response would be immediate and widespread; and that gradually through the years our aloofness might become only a memory.

Community Responsibility—A Task for Educators

Of course, in the long run, education provides the only answer to most fundamental questions. How to inculcate this sense of responsibility to the community in science and engineering students is a task for educators, once the problem is recognized. The student must not only have "a knowledge of social and human relationships, an understanding of the duties of citizenship"[7] but he must be led—I believe even in school and college days—actually so to perform. Teachers taking an interest in civic affairs would certainly influence students. Popular Ike Sharpless, one of Haverford's greatest presidents, always made the effort to have a public job in township, county, or state as an example. We may have to educate the educators.

At a certain girls' school in Virginia—patronized by the very well-to-do—the enlightened principal insists that each student as she matriculates choose some community service in the near-by town to which she will not only devote so many hours each week, but also regularly contribute to its financial support. If I were a college president I would arrange that every freshman planning a scientific or engineering career should put in a stipulated amount of time on com-

[5] Report of Committee on Engineering Education After the War, *Journal of Engineering Education*, vol. 34, 1944, and MECHANICAL ENGINEERING, vol. 66, 1944, pp. 403–412.

[6] "The Engineering Profession Tomorrow," by Robert E. Doherty, president, Carnegie Institute of Technology, MECHANICAL ENGINEERING, vol. 66, 1944, pp. 602–604.

[7] See reference 5.

munity activities—perhaps as a runner for a hospital, in doorbell pulling for a political party,[8] making surveys for the town council, soliciting for the welfare drive—in some activity, preferably one of his own choosing. The political science and sociology departments could well use such services.

If we were completely satisfied with the way our democracy works and if we could detect no threats to the smooth functioning of our social economy, we might well lay this concern on the table. But recent events prove that we must ignore no safeguards. To think out methods for breaking down the barriers which separate science and engineering from the whole life of the community must of necessity be a perfectly logical interest for those of us concerned in promoting good government in a democracy, for only thus can science through Politics become dominant in the affairs of mankind.

I INTERPRET life as a dynamic state of organized matter in which energy is not dissipated, but stepped up thus preserving the balance of energy in the universe and preventing its running down. I see a possibility of choice due to what is now called the uncertainty principle and what I spoke of many years ago in my paper on the freedom of the will as the principle of plural effects. I try to interpret as good any action which tends to preserve the balance of energy in the world, and as evil any action which works in dissipating it. . . . I draw the conclusion from these fundamental principles that choice being possible and subject to the guidance of our conscious mind, we are responsible for our actions whenever our mind is capable of evaluating the alternatives.

Personally I am inclined to think that the forces which manifest themselves in living organisms and differ from those known at present to physics are nevertheless physical in nature and subject to natural laws supplementing, rather than setting aside, other natural laws. The time may come when those forces may be known and the mystery of life will be solved. Until that is accomplished, science would be unjustified in any attempt to substitute faulty reasoning engendering doubt for the calm assurance of religious faith.—Alexander Petrunkevitch in "The Controversy of Faith Versus Reason," *American Scientist*, July, 1945, page 189.

[8] In years gone by I used college students in large numbers to do political canvassing and paid them well out of party funds for the service.

What we all need to have taught us is that we are born not mere atoms floating independent and apart for a season . . . and sucking up as much more than our share of nourishment as we can seize; nor citizens of the world with no more definite duty than to keep our feelings toward all our fellows in a steady simmer of bland complacency; but soldiers in a host, citizens of a polity whose boundaries are not set down in maps. * * * We need to be taught that we owe a share of our energies to the great struggle which is in ceaseless progress in all societies in an endless variety of forms, between new truth and old prejudice, between love of self or class and solicitous passion for justice, between the obstructive indolence and inertia of the many and the generous mental activity of the few. This is the sphere and definition of the social conscience. The good cause of enlightenment and justice in all lands—here is the church militant in which we should early seek to enroll the young, and the true state to which they and we should be taught that we owe the duties of active and arduous citizenship.

JOHN MORLEY in "Rousseau"
(MacMillan Company)

Planned Execution—The Issue of Scientific Management[1]

By H. S. PERSON

Consultant in Business Economics and Management, New York, N.Y.

WHY are isolated individual efforts to establish effective planning in typical government agencies so generally fruitless? And, what measures can be taken to make total operation of government more hospitable to efforts which go to the roots of assuring far greater efficiency and economy than usually prevail?

It is to offer an answer to these questions that this paper has been written. And since in a sense it supplements an earlier address of mine,[2] the discussion will be introduced by a reminder of three generalizations from this previous address.

" . . . Scientific Management technique is a *technique of approach;* of approach to the solution of the management problem presented by each separate management situation. It is not something definite, something crystallized, something that can be bought and sold, imitated or stolen, transferred from one place to another and installed like a boiler or a milling machine. It is a way of discovering what the particular management technique should be for each particular situation. . . . The physician has a definite technique of approach to a medical case, but each case is a special problem. The lawyer has a definite technique of approach to a client's case, but each client's case is different from every other. . . . Thus it is in every instance where science is brought to the aid of performance in situations compounded of variable elements. There may be a transferable definite technique of approach, but not a transferable definite solution.

"The two major sectors of the technique (of Scientific Management) are: first, studies employing every resource of scientific method to discover the most suitable item, design, material, facilities for production and craftsmanship made available by the current state of technology—to discover, as Taylor put it, the laws of the managerial situation; and second, of arrangements, which are summed up in the word management, for bringing the laws of the situation discovered by the studies into dynamic creative relationship. . . . Step by step research and arrangements must march along together. Otherwise the research may be costly dead fruit, and the arrangements may be costly misfits.

"The major consequence, revolutionary in the field of management, of this coordination by Taylor of research and indicated arrangements is the creation for each enterprise of an institutional mind. This mind is independent of the personal minds of owners and managers, and of other individuals who may come and go, in whose collective activities the institutional mind expresses itself. This institutional mind has its powers of perception (investigation, research, experiment), of memory (records), of reasoning (analysis and comparison), and of design (planning and arrangement). Its life is coexistent with the life of the enterprise, and it can think and arrange affairs with that perspective made possible only by such characteristics. It has capacity to think in terms of experience larger than that which comes to any individual, to define distant goals, to arrange highly efficient ways and means of attaining them, and to pursue these distant ends consistently, yet with a flexibility which permits adjustment to changing conditions."

These excerpts that head up in the concept of the institutional mind are chosen as our lead to this brief discussion of planning because it is the existence of an institutional mind that indicates whether an enterprise really has planning—that is, planning of a Scientific Management order. Planning in its generic sense—planning that is casual, expedient, personal, limited, unorganized—is not new. It began with the first human being and has continued ever since to be a natural practice of all individuals and groups. But planning that is identified with Scientific Management is highly organized and integrated, although in some enterprises it may be carried on in positions decentralized both vertically and horizontally. The institutional mind makes such planning possible, and planning is the major substance of that mind's activity.

[1] Address before the Washington, D.C. Chapter of the Society for the Advancement of Management, June 28, 1945.

[2] "The Genius of Frederick W. Taylor," *Advanced Management*, Vol. X, No. 1, January–March, 1945.

The combination of centralization and decentralization of a highly organized and integrated planning function may be clarified by a schematic illustration. In an industrial enterprise characterized by Scientific Management on all its levels, there is an executive of high rank and competence responsible for the techniques and the coordination of activities of all planning units. Attached to the general administrative offices is a planning unit concerned with objectives, policies and over-all programs. It discovers and organizes the data that constitute the basis of general administrative decisions; those, let us say, on the proprietary level. On the operating level, distinct from production planning and attached to the sales department, is a planning unit concerned with market analysis and sales programs. In this unit originates the initial force governing operating activities in competitive enterprise; and it should be noted that there is necessarily a close integration of the studies and findings of the general administrative planning unit and this market programming unit. Attached to the sales department also is a supplementary planning unit concerned with direction of sales execution—quasi-planning and quasi-executive because it must plan execution of the sales programs but also must manipulate and adjust selling activities by frequent changes of the plan to meet the variables of the market.

These planning units concerned with general administration and marketing are developments since the day of Taylor. In his day the United States was on a sellers' market and selling was not then a major problem. Production was the major problem. Therefore the planning concept and technique given to the world by Scientific Management in Taylor's day was concerned with production—with fabrication processes. Taylor died in 1917. It was the depression of frozen inventories immediately following World War I that turned Scientific Management's attention to lack of coordination between selling and production, to the indicated need for planning by general administration and by the marketing division, and to adaptation to these areas of the principles and techniques already highly developed in production.

Production planning had been developed completely and effectively more than a quarter century earlier. It is not necessary for us to go into the details —the literature makes them clear—but I do want to refer to certain sub-functions as a basis for generalizations that are to follow. *Routing* works out in terms of established standards the blue-print of execution of production of each component of product or service, and of combinations of components, with reference to an unknown "D" day and in general terms of *what, how much, how, when and where.* Routing procures its basic data from a coordinate research unit, of which the principal technique *time study* has been high-lighted, but in respect of which it should never be forgotten that Taylor emphasized the necessity of constant familiarity through technological literature with past and current discoveries in industry as a whole. Taylor charged his associates never to incur the expense of an experiment until it has been determined that no one else had already made it. On "D" day, the day of execution, the blue-print of execution previously worked out by the routing sub-function is taken by the *order-of-work* sub-function and in accordance with the routing instructions work is got under way at specific work-places through the issue of move-material slips, work-order slips, and similar documents. These are time-stamped as they are sent out to operatives and again time-stamped as they are returned. The difference between these time stampings indicates the actual times of performance for comparison with the predetermined standard times as a means of determining how satisfactory is the course of execution. Also from these time-stamped slips are made postings to continuous records of each worker's accomplishment, each machine's efficiency, each method's soundness, and so on. In turn these records become part of the basic data of the routing sub-function and enable the latter to be increasingly realistic in terms of the actual capacities of the particular combination of workers, machines and methods, and to make studies looking toward improvement of standards.

I call your attention to this fact in particular: it is these continuous current checkings and postings of the actual course of events by the planning unit that discovers weak spots where matters need attention and perhaps correction; and it is the passing along of the facts of the situation to responsible supervisors that warrants the generalization that planning and execution are not divided by a sharply drawn line, but rather over-lap somewhat or dovetail one into the other.

Some Characteristics of the Planning Function

I should now like to make some summary generalizations concerning certain of the characteristics of planning.

1. It is because management is an art that planning is essential. Managerial situations are usually dy-

namic, day-to-day combinations of many variable elements. Human capacities and material facilities must be manipulated day by day to solve the problems presented by each day's peculiar combination of variables. What planning does is to bring science to the aid of the art in these day-to-day manipulations that effect control of variability. It is through the function of planning that research and arrangements are brought together and made to march along together.

2. With tools of scientific method, planning analyzes the cumulative experience of the enterprise and seeks to discover what elements in the experience are constant, what are variable and repetitive, and in so far as possible what are variable and fortuitous. For those that are constants it arranges routinized controls. For those that are variable and repetitive it arranges ways of detecting them, sometimes discovering their timing, and provides adaptable quasi-routinized controls for them. Those that are variable and fortuitous it handles as exceptions, focuses accumulated administrative and technological knowledge on each new such experience as it appears, and promptly makes to order a treatment to fit the circumstance.

3. Because it is a function of the management of dynamic situations, planning must be a continuous process. There are, to be sure, certain kinds of projects of a static nature of which any one may be planned once and perhaps for its life—a building, a highway, a bridge, a work of art. But enterprises that are dynamic and changing cannot be planned once and for life. Planning is a part of the changing life, and, although relatively constant as to method, must in details of its arrangements and manipulations change to meet the changes presented by the stream of experience.

4. Planning must operate to the greatest possible extent in terms of standards. Among these are: precisely defined objective; precisely defined qualities and quantities; precisely defined technological ways and means of achievement, including human capacities as well as material facilities. These are the unit counters in planning's game with variability. These standards must be discovered by research and experiment. The behavior of material things is governed by physical laws and the behavior of human beings by psychological as well as physical laws, and it is discovery of these laws of behavior that constitutes the research part of planning's responsibility. Once they are discovered, weighed, measured and evaluated, definitions and specifications must be formulated and maintained. The search is always under way for better standards, and from time to time a new standard is discovered and substituted for one that is obsolete; but until an established standard has been formally displaced, it must not carelessly or willfully be disregarded.

5. Of outstanding importance among the standards required by planning is functional organization and distribution of responsibilities. Precisely *who* shall do *what* is critical, and who shall do what can be specified only in terms of functions. Analysis of objective leads to analysis of ways and means of achievement; analysis of ways and means leads to specifications of facilities and of the *what* and *how* and *when* and *where* of unit acts of execution. Definite responsibilities for definite acts of execution according to the flow of definite instructions must be assumed by the planning function. Otherwise there cannot be planned and coordinated execution, records at each unit point of execution to make certain that execution is as planned, and prompt action to correct imperfect execution where it may occur.

6. Planning for any enterprise of substantial scope must operate on various planes, each of which has its standards, which must interlock with—be multiples or divisors of—the standards of all other planes. On all planes the same applicable unit data must be employed, but among the different planes the compound standards, the working standards, may be different. There is strategic planning on the highest plane, tactical planning on intermediate planes, blue-print planning at the level of detailed execution, and *individual worker's planning at the individual work-place*. It should never be out of mind that, except where a worker is victim of highly mechanized chain operations, he has large discretion within the frame of specifications of quality, quantity, tolerances, suggested methods, standard times, and so on, to plan how he as an individual will handle a particular job.

The simplest illustration is the planning of a multiple-plant corporation. The central office plans policies, programs and the over-all tasks of constituent plants. The general office of each constituent plant, within the frame received from the central office, plans the tasks of its several departments—sales, production, finance, personnel and so on; and plans them so that they interlock. The management of each department plans in detail the execution within that department; and here we approach the blue-print stage. The management of each unit of a department plans its activity in ultimate blue-print detail; and each

workman at each work-place plans the execution of his responsibility in accordance with his personal characteristics. The planning at any level in the series fits within—fills in the details of—the planning of the preceding level. And at every level there is responsibility for keeping objective, policy and procedure within the confines of socially desirable limits.

7. Within this wide scope of its activity planning helps to plan policy at the one extreme, plans detailed execution at the other extreme, and has a finger on the pulse of actual execution. It is not a completely detached function which receives from top management advice as to objective and instructions to plan and has no concern with execution. But its concern with execution, subsequent to planning the execution, is strictly limited, and planning may do much harm if it reaches so far into the area of execution as to become meddlesome.

8. Finally, planning requires some basic, ultimate standard to serve as a guide for its own activities and as a criterion by which to judge their quality. This standard is something additional to achievement of the objective of the enterprise; it involves also the manner of achieving it. In industrial private enterprise this controlling standard is profit. Because in simple terms profit represents the difference between selling price and total cost, and the selling price ceiling is determined by the market and not by the enterprise, reduction of cost comes to be substituted for profit as the immediate standard by which the quality of planning is evaluated. In philosophic terms it is conservation of human and material energies.

Planning in Public Agencies

In respect of the suggestion that I present some reflections, based on nearly thirty years of intermittent opportunities for observation, on the difficulties of developing in public agencies planning of an order comparable with that in private industry, and then in conclusion some reflections on national planning, it may be said that these subjects are not unrelated; that a Scientific Management order of planning throughout government agencies would be much more feasible and vastly stimulated if there were over-all planning on a national scale.

Planning of the highest order is generated, stimulated and sustained by the need for action. It must start with a fairly definite objective, it must be guided by some understanding of policy, and it must divide action into definitely assignable parts. Organized national planning (let us say for illustration to maintain full employment) with a central perspective, either within the Congress or within the Executive Offices, or by a special agency on behalf of either or both branches of the Government, would have several strong influences. It would tend to make more of the agencies action agencies to carry out definite parts of the national program; it would give them as action agencies specific working objectives to achieve within the frame of their respective responsibilities, which are now expressed in rather vague creating or enabling statutes; and these definite assignments would carry with them definite statements or fairly equivalent implications of policy.

These stimulants to and requirements for effective planning are not now existent in most of the typical government agencies. The exceptions tend to prove the rule. The two great military establishments are action agencies in time of war, with a residuum of action characteristics in time of peace. Particularly in time of war these agencies are assigned a definite great task to do that calls for much action involving anticipation and handling of constants, repetitive variables and unknowns; and in the field of operations they develop some of the finest examples of planning of the Scientific Management type that we know.

Some Obstacles to Effective Planning in Government Agencies

Generally the permanent government agencies are not action agencies. In the course of time they tend to lose whatever action characteristics they may have started with, and they become progressively crystallized and routinized and lag behind the march of events. Projects for which appropriations are sought are the result of suggestions and consensus rather than work-load analysis of an action program; and budget making for procurement of appropriations is largely a fishing expedition. Such agencies offer almost impregnable resistance to the exceptional individuals here and there in their organizations who are stimulated to an effort to establish planning—energy-economy planning—of the type in which we are interested.

Absence of the quality of being an action agency, absence of clearly defined objective and constituent programs, and absence of adequate guidance by formulated policies are fundamental obstacles to effective planning. In the course of time collateral obstacles develop in such an environment.

For instance, if there is not a clearly defined objective calling for action, analysis of ways and means is not urgent and is not undertaken or is neglected. If ways and means are not analyzed the proper organi-

zation is not discovered and established, or if once established, becomes warped and out of shape. Functional boundaries of units and of individuals are not surveyed and staked. On this basis procedures cannot be made precise and dependable, the establishment of achievement and performance standards is difficult, and the measurement of achievement and performance is practically impossible.

In some agencies service staff units may be set up with limited and loosely defined planning responsibilities, but generally under the circumstances they are ersatz planning units, and are likely to yield to the temptation to meddle in operational matters beyond the functional authority of proper service and related planning. In the absence of analyses of objective and of ways and means, and in the absence of functional organization and specifications, the whole system of classifications and job descriptions becomes perverted and breaks down, and tends to become a device for procuring salary increases instead of for selection of most suitable personnel to match defined functional responsibilities and secure precision and economy of performance.

Absence of motivation for economy is one of the major obstacles to the development of effective planning in government agencies. This is the absence of something equivalent to the profit or low-cost motive in private enterprise. Absence of the motivation for economy does not mean that there is indifference to gross waste or to obvious lesser waste in government agencies. Yet a habit has become widespread of paying supervisors in direct proportion to the number of positions they can by persuasive justifications get added to their units, rather than in some proportion to the number they can eliminate and still do the job. This is the opposite of the best management in private enterprise. Rarely as a matter of principle is each act in public enterprise analyzed and appraised, as a thing in itself as well as in its relations, in respect of whether it should be performed and whether it could be performed more economically. More economically may mean, by the way, in respect of some operations a higher grade of skill at a higher wage; but by and large it means a lower unit cost from a given skill at a given wage through more perfect definition and coordination of various operations. Generally industry gets its savings as the sum of thousands of items of small saving here and there. I recall the case of an industrial engineer who was called to the planning department of a great automobile plant and given the specific assignment of cutting the manufacturing cost of a car by $10 without reducing wages or using inferior materials. He saved the $10 by the method of reducing through better procedures and coordination the cost of let us say a thousand different operations by an average of one cent each.

I have an intuition that a solution might be found if the habit of planning, with its dependence on proper organization and procedures and measurements, could once become established as an example in some government non-action agency. The obstacles to which reference has been made appear to preclude any spontaneous and autonomous beginning and development of planning of a Scientific Management order in any typical government agency. But if, for instance, the Congress were to establish an *ad hoc* board, professionally manned, that could persuade some agency to undertake jointly the development of such a type of planning, and they should do it understandingly, professionally, and patiently, and with cooperative adjustments by the Civil Service Commission, the consequence of such a demonstration would undoubtedly be far-reaching. If they could work out an adequate definition of the demonstration agency's objectives; analyze the ways and means on various levels of achieving the objectives as nearly as possible in action terms; set up the functional type of organization favored by planning; define functional boundaries and responsibilities clearly; establish standards of performance and necessary measurements of details of actual performance; employ people most suitable for particular functions, and train them, and limit them to those functions; provide necessary information through adequate procedural orders and instruction; establish planning and modify and improve it and its conditions in the light of actual experience—if these things could be done, professionally and patiently, one might expect notable results in the direction of planning even in non-action public agencies.

Perhaps before beginning with a typical old-line agency an influential demonstration could be made by enlisting the interest and active cooperation of an easier case—say the Tennessee Valley Authority, which as a fairly autonomous government corporation has the reputation of having achieved an exceptional level of management.

National Planning

Only in the Soviet Union can there be said to be national planning—i.e., social-economic planning on the national plane and scale with the perspective and

processes of a national institutional mind created for the particular function and continuous in its processes. In this connection it may be well to note parenthetically that in U.S.S.R. experience it has been necessary to extend the reach of the fingers of the planning agencies into the areas originally assigned to executing agencies.[3] Among other nations probably the United Kingdom comes nearest to experiencing some of the advantages of national planning without possessing the institution, because of the parliamentary system in which legislative and executive are so closely related that there is common perspective and integrated processing—almost an institutional mind. The United States perhaps is farthest from possession of anything resembling a national institutional mind because of the federal form of government in which powers are divided between the federal and state governments, and within the federal government among legislative, executive and judiciary under a system of checks and balances. But it may be—there are signs pointing in that direction—that the very rigidity and inflexibility of our form of government, which makes it practically impossible for the Government itself to become the equivalent of a national institutional planning mind, is making it necessary for the Government to create for its own guidance and assistance something in the nature of a specialized national institutional planning mind.

Prior to the depression of 1929 the concept of national planning had not found a place in American thinking. Of course, the planning in the Soviet Union was given some attention, but it was observed to be the product of an anti-capitalist revolution, and therefore generally presumed to be inherently both anti-capitalist and anti-democratic in nature. Within a few years after the depression of 1929 the circumstances generated a flash flood of pamphleteering on the subject apparently quite independent of the Soviet precedent. In 1932 Hugo Haan of the International Management Institute, Geneva, made a survey of official, semi-official and private planning proposals in the United States and found nineteen worthy of listing.[4] For various reasons this pamphleteering died out; probably because of the then public intolerance of the word *planning*, too closely associated with the Soviet Union, because of a vast new subject-matter for public attention and discussion offered by the national program identified with the term *New Deal*, and possibly because mistakenly some citizens thought the New Deal was an American adaptation of planning.

Under the influence of our participation in World War II such pamphleteering has been resumed, and along the same line essentially, but generally, with avoidance of the term planning. It is less doctrinaire, and more in terms of practical problems arising out of the war and its effects, such as maintenance of full employment. If Hugo Haan were now to revise his list he could add proposals of the United States Chamber of Commerce, the American Manufacturers' Association, Fortune Magazine, the League for Industrial Democracy, others of a similar occasional nature, and especially the publications of the National Planning Association, an organization that maintains a constant campaign of education and continues to carry the word planning in its own name, although now seldom in the titles of its notable reports.

The value of such pampleteering should not be underestimated. It is of course not planning, but it is a great educational force that acquaints citizens with the problems that call for planning, gradually accustoms citizens to the concept of planning, influences citizens to action that brings the day of organized planning nearer, and in some measure helps to predetermine the direction that eventual planning is to take. In this connection it may interest you to be reminded that such pamphleteering has always in a democracy appeared in a period of crisis, influenced the new thinking and stimulated action along new lines; for instance, in connection with the American Revolution, the Civil War, and the depression of 1929.

This pamphleteering also, as I have just intimated, performs unofficially a small segment of the function of planning. The research part of planning consists of many elements. Scientific research and experiment are emphasized. But many problems confronting planning units substantively or because of the time factor do not lend themselves to experiment and to research of a scientific order. Many of them call for studied observation and analysis of the experience of others as well as one's own; for exchange and consolidation of pertinent experience, for conference and discussion, and for consensus of judgments. This function is being performed in substantial measure, although unofficially, by much of the pamphleteering of today.

Recent Moves toward National Planning

As for official moves looking toward genuine organized national planning there have been two and a

[3] Cf. "The Industrial Enterprise in Russia," by Solomon M. Schwarz, *Hervard Business Review*, Vol. XXXIII, No. 3, Spring Number 1945.

[4] *American Planning in the Words of Its Promoters*, American Academy of Political and Social Science, March 1932.

fraction proposals in the United States. You will understand in a moment why I use the fraction. The first of these was the Senate bill to establish a National Economic Council introduced by Senator Robert M. LaFollette, Jr., of Wisconsin, in 1931 (S 6215, 71st Congress, 3rd session; S 2390, 72nd Congress, 1st session). This Council was to consist of nine members representing industry, finance, transportation, labor relations, agriculture and Scientific Management. Salaries were set at $15,000 per year and no member could engage in other business, vocation or employment than that of serving as a member of the Council. The duties of the Council were stated in the bill essentially as follows:

(1) Keep advised with regard to general economic and business conditions in the United States of America;
(2) Consider problems affecting the economic situation of the United States and its citizens;
(3) Endeavor to formulate proposals looking to the solution of such problems;
(4) Make an annual report on or before the first Monday in December to the President or the Congress, together with its recommendations, if any, for necessary legislation or for other action;
(5) Submit, from time to time, reports dealing with particular economic questions, together with its recommendations to the President, the Congress, and the appropriate economic associations, councils and organizations interested in such questions;
(6) Initiate the organization of councils or associations within the major branches of production, distribution, and finance, to consider economic questions affecting their operations.

This bill did not reach the floor of the Senate for consideration and vote although a sub-committee had reported it favorably to the Senate Committee on Manufactures.

The second proposal was HR 9315, introduced in 1932 by Congressman Seymour H. Person of Michigan in the 1st session of the 72nd Congress. This bill was designed as a companion to the LaFollette bill and was on the whole identical, but it added certain elements to the powers of the Council. The additions consisted of the responsibility and authority to require confidential quarterly reports from every enterprise engaged in the business of manufacturing, converting, fabricating, assembling and otherwise treating materials for sale, whose gross sales were $1,000,000 or more per annum, the substance of these reports, without identifying industrial plants, to be published periodically to give the business public a picture of the trends. This substance was designed to give the Council much the same qualitative and quantitative capital investment and operating information as the central office of a multiple-plant corporation requires of its constituent plants. This bill never got out of the Committee on Interstate and Foreign Commerce.

The Full Employment Act of 1945

The third official proposal, representing what I consider a fractional step toward organized national planning, is the "Full Employment Act of 1945" (S 380) introduced by Senator James Murray of Montana on behalf of himself and Senators Wagner of New York, Thomas of Utah, and O'Mahoney of Wyoming[5] in the 1st session of the 79th Congress.

This measure does not propose to establish an Economic Council or any equivalent special agency. It contemplates the submission by the President through the Executive Office at the opening of each regular session of the Congress of a national production and employment budget, this budget to be prepared with the advice and assistance of the cabinet, executive departments and any advisory boards and representatives of local governments, industry, labor, and agriculture that the President may desire to utilize. If a deficiency of jobs is indicated in the budget the President is to recommend stimulating legislation and public action intended to bring available labor and jobs into balance, including federal expenditures if considered necessary. If a surplus of jobs is indicated, deflationary recommendations are to be made. The budget when received by the Congress is to be studied by a Joint Committee on the National Budget made up of chairmen and ranking minority members of pertinent committees of both houses; and this Joint Committee makes its recommendations to both houses of the Congress. Thereupon the several regular committees of both houses take up their contributory tasks, as indicated, and bring bills before the respective houses in the usual manner. This is not all there is to the bill, but it indicates the basic feature.

To one acquainted with Scientific Management thinking and technique this is obviously not a proposal for national economic planning. There is no func-

[5] For an excellent analysis of this bill, accompanied by the complete text see "The Proposed Full Employment Act" by Charles I. Gragg and Stanley F. Teele, in *Harvard Business Review*, Spring Number 1945; Vol. XXIII, No. 3, p. 323.

tionalized and specialized planning agency to analyze the objective and discover ways and means. The responsibilities, in accordance with characteristic weakness of our government in such matters, are distributed among too many participants. The result is not at all likely to be an implementation of the law of the situation discovered by competent special study of the situation, but an expression of conflicting assumptions and opinions and of compromises. It is a long distance from planning.

Nevertheless, I urge that this bill be supported vigorously by every citizen interested in Scientific Management and in national planning of a Scientific Management order. It faces in the right direction because it recognizes that full employment—the very heart of any national planning problem—is a major objective; it sets up mechanisms that it is hoped will promote full employment; if these mechanisms are found to be inadequate in practice, we shall because of that experience know by trial what is not adequate and be that much farther along; and we can then turn to devising mechanisms that promise a higher probability of achieving the objective. Democracies progress by a succession of inadequate efforts. The important thing is that all face in the right direction, and that each be less inadequate than that which precedes.

There is an alternative possibility—not a very likely one indeed—in the fact that within the frame of this bill and under authorization to establish "such advisory boards or committees . . . as he may deem advisable . . . " a bold, vigorous Executive, convinced of the desirability of a Scientific Management order of National planning, might create a functionalized, specialized, continuously working equivalent of an economic council which, utilizing regular departments for its fundamental studies, would serve as a make-shift institutional mind and formulate integrated programs and plans for the Executive to present to the contemplated congressional Joint Committee on the National Budget.

On the whole there is ground for optimism. The pressure of events is a powerful ally of those who believe in national economic planning in principle. The people of the United States have learned a great deal since the desperate days of 1932; during the early part of the period in respect of the control and regulation of the domestic economy, and during the later part of the period in respect of the impact of world problems on the domestic economy. They perceive that the United States must share with two other powerful nations the direction of world affairs for a considerable period; a direction that involves harmonizing domestic economies with world economy. They perceive also that the other two nations sharing this responsibility are planning nations; one because of its organized planning, the other because of the accident of its form of government. The people of the United States will perceive the functional necessity, and functional necessity in the long run prevails.

For More Profitable Debate

LISTENING to much of the continuing debate on government and business, the ordinary U.S. citizen must sometimes be struck with a sense of unreality. The words and the slogans seem to have lost their meaning; they don't check with experience and common sense. The ordinary American, an eminently sensible person, knows that life is not the black-and-white proposition that so many of the debaters would have it.

Would not the debate prove more productive if we faced up to a few broad—and pretty safe—assumptions? Without pretending that the list is in any way complete, we offer these eight points:

1. Modern business cannot exist without the aid and protection of government. Through the privilege of limited liability, government permitted the growth of big corporate business, which would have been impossible otherwise. No public utility can exist without some delegation of governmental power. Statutes and courts have laid down the basic rules for both free markets and monopolies, and government enforces the rules on private contracts. Treaties, diplomacy, and consular services are essential to the businessmen abroad.

(*Please turn to page* 154)

The Pattern of Executive Leadership*

By MARSHALL E. DIMOCK

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WHAT sort of man is the executive? What are the administrative functions which he personally performs and how is that performance influenced by the kind of man he is? To what extent does he shape his organization and how much, in turn, is he shaped by it? What is the most successful combination of qualities in the executive-organization relationship? What are the potentialities of the executive-employe relationship in management? What, in short, is the arithmetic of executive leadership?

An authority on public administration has said that one of the principal qualifications of a successful executive is an ability to loaf. Most executives, on hearing this statement, would probably ask, "What kind of an administrator is this? I should like to meet him."

There are all kinds of administrators just as there are all kinds of programs. There is the type of activity which involves a high degree of concentration and a streamlined organization as, for example, in the Federal Bureau of Investigation, the Immigration and Naturalization Service, the Bureau of Internal Revenue, and the Army and Navy in wartime; as well as many hard-hitting business concerns such as General Motors or General Electric. The Recruitment and Manning Organization of the War Shipping Administration also falls within this group. It is almost entirely an action agency in which clear lines of authority and the unified flow of work along an integrated system are indispensable to success. Work which is telegraphic and dynamic must have the appropriate kind of organization and executive leadership if it is to operate effectively.

There is a second kind of action program which involves control but in which the pace is not so fast, as in the operation of a public utility or a railroad. Examples of this type in government are the Interstate Commerce Commission, the General Land Office, and the Wage and Hour Administration. Here the immediacy of decision is not so pressing. The emphasis is more on planning and research and hence organization and leadership do not need to be so highly geared.

In a third group is found the type of program which involves primarily research and deliberation, and action only secondarily if at all. The many private research councils fall into this category. In Washington there are many similar examples and at one time they predominated in the federal government. In consequence of the 1929–39 depression, however, and the world war which followed it, this kind of government work was surpassed in importance and number by many programs in which the main emphasis was upon action. Typical of the research agencies are the Census Bureau, the Children's Bureau, the Bureau of Foreign and Domestic Commerce, the Cultural Relations Division of the State Department, and the Office of Education. The executive who heads this kind of organization does not need an administrative capacity in which driving force is the principal characteristic. He can afford to be more leisurely because the program can afford to be more loosely run.

If by ability to loaf is meant the capacity to take it easy, then it is obvious that the prospects of the executive in the dynamic, the semi-dynamic and the deliberative organization vary considerably. In a dynamic organization he who is able to loaf is pretty sure to find it difficult to stay on top of his job, assuming that he is in that desirable position to begin with.

If, on the other hand, by the ability to loaf it is meant that the executive should not be forced to overwork except on rare occasions, then I agree to this as a valid and suggestive characterization. Altogether too many executives mistake the means for the end, deluding themselves into the belief that the longer hours they put in on the job, the greater is the demonstration of their devotion to duty and their acumen as an administrator. I contend that those who become chronic night workers do not exhibit either of these virtues. On the contrary, men who force themselves and their organization to work unreasonably long hours usually betray a serious lack of qualification as executives. In the first few days of a new enterprise it is to be expected that the staff will have to work overtime. It must also be granted that in the life of any concern, unforeseen demands and crises arise which require the attention of the executive and his staff until the special order has been filled. In the well-ordered institution, however, such instances should be few. If they become numerous and chronic then the executive had better ask himself whether he knows

* This article has been adapted from the author's book, *The Executive in Action* (Harper and Brothers, 1945).

how to run his job. It is no exaggeration to say that habituation to long hours is in some cases a form of masochism. The executive, perhaps unknowingly, is attempting to conceal his own shortcomings by punishing himself and everyone who works with him.

The Physical Foundation

Nothing is more important in the equipment of a successful administrator than physical vitality, and a constant flow of energy cannot be maintained unless he works according to a reasonable schedule and takes care of himself. There is an arithmetic about the expenditure of human energy. The man who works beyond the normal number of hours must expect a physical let-down during which his accomplishment will be reduced. If this period of overwork is continued, he may expect to pay for it later in the form of lowered reserve energy or even physical disability. Men and women of unusual physical vitality frequently delude themselves into the belief that they can burn themselves up at a rate far beyond normal over a considerable period of time and never pay a price for it. Eventually their flouting of physical law manifests itself, of course, and by that time it is usually too late to recoup the loss.

An efficient executive should be able to organize his work and his employes in such a way that the normal flow of work is accomplished within the usual working hours. If the size of the task grows, then he must see to it that a corresponding increase takes place in the number of employes and in any organizational expansion which is required to take care of it. Here also there is an arithmetic which is his guide. A common fallacy holds that a constantly increasing load of work can be carried by a fixed number of employes simply by driving them a little harder. But here again the executive, in his conceit, overlooks an elementary law of nature, because eventually everyone in his organization is burned out, including himself.

An efficient organization, therefore, is one in which every member of it is physically and mentally in good condition. Such a condition can be maintained only if they work at maximum capacity during a reasonable number of hours and follow this with sufficient rest and relaxation. The physical welfare of his employes should be a first concern of any supervisory official. He should realize that if he becomes a chronic night worker himself, he must of necessity expect others to follow his fatuous example. This is selfish of him and if his employes have any spirit it will be resented. His ideal should be to create a loyalty and a teamwork which will result in his employes' cheerful acceptance of overtime work whenever the necessities of the situation require it, which happens occasionally. On the other hand, he should make it clear to them that the effectiveness of the program is to be judged by every man's operating at his peak efficiency during a given number of hours each day. Then, if the organization is on its toes, the need for overtime and night work will be rare.

The public administrator who contended that the ability to loaf was a prime requisite of the good executive, also emphasized that a person who can relax and "spend the time of day" is ordinarily the type of man who likes people and who is in turn popular with them. Ability to get along with people and to influence them, he believes, is an essential executive qualification. This is obviously true. But here again, easy generalization is misleading. The extent to which an administrator may be easy-going depends upon the type of program which he heads. Most of us have heard men say, "I pride myself on not being tied to my desk." Anyone who has had managerial experience will naturally want to know what kind of program that individual is handling. If it is a fact-finding, planning, deliberative activity, then the remark is not surprising. But if, on the other hand, it is a dynamic, action agency, then one has reason to be skeptical.

A Three-fold Classification

The executive who analyzes his functions deliberately, will find that he has three principal concerns, the importance of which occurs in the following order: First, he must keep the enterprise on an even keel, by which I mean that he must constantly expect the unexpected and be ready to deal with crises whenever and wherever they appear. Second, he must delegate everything that he can to those working under and with him. Third, if the program is going along satisfactorily, he then has the time and nervous energy with which to chart the course that lies ahead, to survey new horizons, and to add to the effectiveness of existing equipment. Some executives, of course, spend all of their time on the first function; others are able to master the first two; but the test of the good executive is whether he is able to discharge all three. If he is not, then he is not on top of his job; and it is surprising how many, both in business and in government, are in this unhappy predicament.

What does the executive do? In the first place, he must possess a clear conception of plans and strategy.

Then he must have people he can rely upon to do the job. Finally, he needs a streamlined organization where a direct flow of responsibility will make possible a hard-hitting and effective program. But he must also be on guard against a cumbersome superstructure of staff and advisory personnel who merely get in his way and take up his time.

After he has the plans, the personnel and the straight line of organization, program effectiveness becomes a matter of timing and synchronization. Everything that the organization does is interrelated. Every move affects many of the parts of the institution, no matter how distant. If the executive concentrates upon one area to the neglect of others, the machine will become deranged. Then, unless it is straightened out, the top man loses control of his organization.

The Program Check-up

Executive work is partly a matter of taking routine and periodic inventory of the current state of accomplishment in an unfolding program, in order that the head of the enterprise may secure a bird's-eye, integrated view of the progress of the work as a whole. After a short time this inventory becomes more or less automatic because there is a logical order in which one checks up on various phases of the activity. This check-up should occur at least once a day, sometimes two or three times a day. Inventory is an indispensable part of the executive's work because it alone gives him the feel of having a finger on everything that is going on, the feel of the completeness and integration of all component parts of his task.

The process of taking an executive inventory may be illustrated in the case of the Recruitment and Manning Organization of the War Shipping Administration, of which I was executive head for the first two years of its existence. There the activities and organizational components came to be thought of in the following order:

Have there been any ship delays? If so, for what reasons? Are they due to a lack of qualified men in essential ratings, or to failures of management? If the former, then what can be done to supply more engineers or more mates? But if they are due to organizational faults, then how can our internal procedures be tightened up? If there is a shortage of men, more can be recruited either from the training schools or the recruitment program. If the training schools have produced an occupational imbalance, it must be rectified. If the recruitment program is not producing the men needed, then steps must be taken to overcome this difficulty. Not only must more men be added to the industry but leaks must be stopped. One possible leak is the inroad of Selective Service: are men being indiscriminately drafted into the army and navy? If so, then it must be stopped. If men are leaving the industry because of dissatisfaction with wages, conditions, or treatment, then these difficulties also must be eliminated. If ship delays recur in a particular port there is a logical presumption that our port representative is not on top of his job. If investigation shows this to be the case, he must either be replaced or straightened out. If allied ships are delayed, there must be discoverable reasons. What are they? If the principal cause is desertion, then the immigration laws must be tightened and the reasons for desertions discovered and rectified. If a particular allied nation has a surplus of seamen, it should be passed on to another suffering from a deficiency. If an allied nation requests the American government to turn over new ships to it, then this government must be satisfied that it has the manpower with which to operate them. Is the morale of American seamen satisfactory? If not, what are the causes of dissatisfaction and what can be done, either through the RMO or other agencies, to eliminate them? Are the convalescent rest centers operating smoothly and without trouble? Are the seamen who may be in need of such service having it brought to their attention satisfactorily? Is the medical program effective from the administrative as well as from the professional standpoint? Are adequate reports on overseas activities being received? Are the personnel who have been assigned to them doing their jobs well, or should some replacements be made? Are additional trained personnel needed on overseas projects? Is the internal division of administrative responsibility at headquarters logical, or is there overlapping and fuzziness, with needless struggles over jurisdiction? Is there sufficient cooperation between the various aspects of the program or, on the other hand, is too much time being spent in conference and discussion?

It may seem at first thought that a regular inventory of this kind of all the components of a program is an exhausting mental exercise, but once the executive formulates a logical sequence in his own mind, it becomes relatively simple to take daily stock of the situation in this manner. Unless you can think logically about the flow of work, one thing leading to another and each in its proper place and none omitted,

you cannot keep your fingers on everything that is being done; and, equally, unless you know what is being done, you cannot think logically, constructively and in a coordinated fashion about the job as a whole. Logical, constructive thinking is essential to a sense of timing. I say "sense" of timing deliberately, because it does become a sixth sense. If you do not have the feel of the situation, then the program is likely to go too fast in one direction and too slow in another, and soon leaves the course altogether.

Personality Types

In executive work there is no substitute for being constantly on the job during all the working hours of the day, knowing exactly what is going on at all times, and keeping watch on all the lines which run out from headquarters to the points where the work is being done. The mere fact that employes down the way know that the top executive is on the job seems to make a difference in their willingness to concentrate on what they are doing. This appears logical when you understand that the most effective method of vitalizing the action of others is to set the right kind of example yourself. It is both unrealistic and hypocritical to expect of others a higher kind of performance than you are willing to contribute personally.

In a dynamic, action agency, the executive's nervous system must be of a highly developed and concentrated type if the program which he directs is to have the same characteristics. If he cannot galvanize himself into quick action, he cannot stimulate others. In this case it is clear which comes first, the hen or the egg. It is as though the executive, by an impact, started a flow of electrical energy which travels along the lines of communication, each individual along the way adding his impact to the original current until the total volume reaching the public has real force and effectiveness.

In this type of program the executive cannot help but become something of a driver. The fact that his own nervous system must be dynamic makes him purposeful rather than casual. He has to do more follow-up work than his counterpart in a more slowly moving enterprise; he has to do more checking; he has to keep his mind on a dozen things at a time. If an employe gets out of place or falls down, he has to correct that situation immediately or the highly organized and sensitive network of his enterprise will be impaired. He cannot get away from hard, energy-consuming work; a dynamic program takes a lot out of him. Participation in this kind of activity automatically leaves its stamp. His physical appearance as well as his bodily deportment, reveal a man who is tense, concentrated, inclined to be on the nervous side, with marks of wear and tear apparent on his face. Such a person, however, does not look harassed, bogged down or beaten; on the contrary, if he is a successful executive and on top of his job, he may look hard-pressed but he will also look confident and self-assured.

The more dynamic the enterprise, the greater the importance of time. Minutes and even seconds count in the life of the busy official. In a situation of this kind the administrator, although he may enjoy companionship and relaxation in his leisure hours as much as anyone, finds himself quickly impatient when people waste his time without purpose. He knows that he must concentrate upon the actual operation of the enterprise, on functions which he alone can perform. So he must surround himself with individuals who will help him provide a front. He needs, for example, a right-hand assistant who is more easy-going, who has the leisure and inclination to talk with subordinate officials either on business or personal matters when they are so inclined. The same person or one like him should deal with public relations because the more the chief executive fulfills his proper functions the less time and inclination he has for "glad-handing."

The danger in such a delegation of responsibility is, of course, that the executive will become so immersed in the strenuous task of running an exacting organization that he will become overtaxed, possibly narrowed, and circumscribed in outlook and personality. These are real dangers and must be avoided. The way to avoid them is to stop now and then for a breather, and take stock of the wider perspective in order that a balanced relationship, taking due account of health and public relations requirements, may exist.

A common difference between executives is that some, because of temperament and general make-up, are not content unless they are out front in everything that concerns their organization and, in consequence, they seldom give others a break. This is the extrovert who sometimes indulges in exhibitionism, in which case he is usually unpopular. In contrast, is the person who prefers in most situations to run things by pulling strings, by putting others out in front and by stepping into the breach only when necessary. The first type of executive gets results by exhortation and direct stimulus; the second secures his by tactics and by delegation.

There are advantages in each. The extrovert, if his vanity is not too great, is usually a good fellow and creates a friendly atmosphere in the organization. The danger in his situation lies in his being out front so much that he does not have the time and energy to shape his future strategy and to calculate integrated moves. The advantage of the executive who is content to sit back and pull the strings is that he possesses the qualifications which his antithesis lacks. He may be called the tactics type. In addition, his method of operation gives more prominence to the men who serve with him, providing greater release for their normal desires for self-development, prestige and influence, and hence they are inclined to be better satisfied and to develop more rapidly. Generally speaking, this results in a higher level of morale over a sustained period of time than in the case of the person who is a one-man show. An organization is a team, not merely a general with an indiscriminate body of followers. The disadvantage to the tactics type is that his personality and drive are not felt down the line as distinctly as in the case of the extrovert, and unless he is careful he gets the reputation for being cold and reserved.

Politics in the Best Sense

The successful executive has many of the qualities of the successful politician. He realizes that he is engaged in a struggle for survival. He knows that there are definite goals which he must achieve, and a variety of techniques which must be employed. The important thing is to understand clearly what the goals are, to use the methods most appropriate to their attainment, to create a genuine feeling of confidence and participation on the part of those engaged in the work, and to move forward with all sections of the program synchronized. It is like the operation of a switchboard, the direction of troops in battle, or the tactical manoeuvering of two competitors for an elective office when vital issues are at stake.

Unfortunately, the words "politics" and "politician" have taken on an odious connotation and hence some will object to the ascribing of political characteristics to successful administrative leaders. A word of explanation and of caution, therefore, is indicated. The executive is not a politician if by that is meant a person who misrepresents facts, is insincere, and plays to the grandstand. None of these practices is successful for long in the operation of an administrative enterprise. For some reason or other, the lowest paid clerk in the largest kind of organization knows as much about the chief executive as many of those close to him. This is one reason for optimism about the future of democracy. To a considerable extent this information travels by the grape-vine, always an effective communications instrument. Thus, if the policies make sense, even the most obscure employe is aware of it. If the chief executive has a firm grip on the situation, it is sensed. If everything is haywire, the least important suffer along with the rest. If the major executives are headstrong, vain or overbearing, it soon becomes known.

The administrator who becomes known as a conspirator or a manipulator, especially if he uses crafty rather than straightforward methods, is usually washed up as soon as he is discovered. A successful politician in an executive position is not a schemer, if by that is meant one who works in dark, mysterious ways. I prefer to call him a strategist—a person who knows what he wants, knows how to go about getting it, and works in the open.

It follows that the influence of the executive on his organization is all-pervasive. He must be a strategist, he must be honest with himself and his organization, and he must keep a hundred things on his mind at the same time without becoming confused or getting panicky, lest his trouble communicate itself to his subordinates. Above all, therefore, he must acquire a sense of quiet composure which comes, not from diffidence nor an air of superiority, but from a solid sense of internal well-being based upon a logical analysis and understanding of his responsibilities. Whenever a part slips out of gear or a crisis occurs, he must turn his attention to that difficulty and solve it immediately. It cannot wait. On the other hand, even if it is a complicated problem which it will take time to resolve, he cannot afford to neglect other work until it is disposed of.

The person with a one-track mind, therefore, does not have the qualifications of a good executive. Nor, as a general rule, does the man with a mania for detail make a good administrator. If he gets his vocational and emotional satisfactions out of such work, he cannot possibly keep half a dozen balls in the air at the same time because, by over-concentration on one, he drops the other five.

A sense of composure on the part of the chief executive, or the lack of it, will be felt all along the line. Because of the delicate and sensitive communications system, both official and unofficial, contained in any organization, all who are a part of it are

sensitive to currents. If the key men are easily flustered and lose their tempers, then those surrounding them work in an atmosphere which causes frustration and discontent. This automatically detracts from their innate efficiency with the result that the net effectiveness of the organization is reduced throughout. There is no man or woman so self-possessed, independent, and oblivious to outside influences that he can long withstand the cross-currents and fluctuations of an organization in which the major executives are at their wit's end most of the time.

Know His People

Not only must the executive possess a sense of composure, but he must also know intimately the strengths and weaknesses of the key people working under him. He must have this knowledge because it is part of his strategy to supplement and buttress whatever weaknesses may appear in his administrative structure. Here is a man, for example, who is successful in conducting informal conferences of division chiefs, bringing personal conflicts out into the open and smoothing over hurt feelings; but he is not especially effective in direct action. Here, on the other hand, is a driver, lacking a sense of organization but effective in anything that he personally undertakes. Because of his hard-hitting, direct methods, he is not inclined to carry others along with him and he is apt to step on their toes. The weakness of the first man is that he lacks the qualifications of the second, while the weakness of the second is that he lacks the qualifications of the first. If the two could be blended into a single person the organization would be strengthened. As it is, the executive must effect a blending of qualities rather than of persons, so as to achieve the same effect.

The man in authority, therefore, must know his personnel—must know the personality and the psychological characteristics of each employe with as much insight and accuracy as possible. When he discovers cases of psychological imbalance, he must try to identify the reason and make such persons more effective production units by correcting the occupational environment, or by whatever other means lie within his power. An organization of neurotics may perform at a superlative level for a short time but over a longer period they are inevitably headed for disaster.

The executive in a dynamic organization must be a combination of toughness and softness. If he is incapable of being tough, then he does not belong in a program requiring high-speed action. Where results must be achieved quickly he must, on occasion, be ruthless if it is possible to be ruthless without injuring the confidence of his employes or the claimants to his service. He must be a perfectionist so far as his organization is concerned. When an employe proves himself incompetent or unmanageable, he must be replaced. When individuals exhibit outstanding capacities, they must be moved ahead as they deserve. When the executive has confidence in a man, he must be prepared to take a chance on his delivering to the extent anticipated. He must constantly assume that his subordinates are capable of performing above the level that they have attained in the past. He must be keenly sensitive to and sympathetic with the personal problems and shortcomings of those who, on the whole, prove satisfactory. When they do outstanding work he must recognize and commend them upon it, for otherwise the incentive to excel will be diminished. But he must avoid producing an unfortunate complacency which will finally discourage initiative rather than develop it. These relationships are personal in each case, because one individual reacts one way and another in quite a different manner.

Increasingly in recent years, students of scientific management and practical executives alike have discovered that the successful administrator has influence with people rather than power over them. Influence with people is determined by two principal factors: first, the possession of real executive ability which will inspire confidence; and second, appreciation of the efforts and contributions of others. If the executive never gives credit for unusual achievement and tries to deceive others into thinking that he alone is responsible for it, he soon discourages extra dedication to duty.

One of the foremost tests of a good executive, therefore, is his ability to develop his employes' potentialities and to "bring them out." Some have this skill more than others but generally speaking it is a characteristic which is associated with parenthood and the teaching profession. Basically, it is due to an ability to understand people, to gain their confidence and to stimulate them, subtly but effectively, at the point where stimulation is necessary.

The Elusive Factor—Judgment

The successful executive must also be fair. Unjust treatment, even inadvertent, soon becomes known. The executive must not be so busy or so impatient

that he fails to understand the reasons for an occasional lapse of efficiency, or personal difficulties which adversely affect his employes' work. If he does not show understanding, if he is unreasonable, he not only forfeits the confidence of the aggrieved individual but also the respect of others in the enterprise. If he becomes arbitrary, capricious and dictatorial, he may become feared but he will also lose his qualifications for leadership. Morale has never yet flourished in an organization based largely upon fear. Sooner or later the members of such an institution find it possible to secure their revenge. Though it is often in little ways, the accumulation will seriously reduce output.

It may be concluded, therefore, that outstanding executive traits are the product of the balance of opposing considerations. The best executive is the balanced individual. He has energy but it does not run wild; he has personality but it does not lead to exhibitionism; he is a driver but he is fair; he is sure of himself but not dogmatic; he has self-confidence but not to the point of thinking that he is always right and failing to realize that others can frequently teach him something he should know.

It will soon be discovered, however, that the number of balanced persons of this kind is limited. One must work, therefore, with the stock at hand. It is possible to encourage an individual to become more rounded and to correct obvious defects, and this is part of the responsibility of the executive. Unfortunately, when people reach adulthood, the possibilities of fundamental change are circumscribed. Such being the case, the executive must balance and buttress the key men in his organization by throwing his weight here and there as required in order that the weaknesses of his assistants may be supported and their effectiveness broadened.

Finally, the executive must have good judgment. His life is filled with decisions, some of which are of major importance and many of less. To the extent that he can make such decisions after consultation and advice, and choose the course of action which turns out to be the best and the most just in the eyes of his employes and the minds of the public, is he an effective administrator. The excellence of his judgment is perhaps the principal respect in which individuals differ. Judgment is simply a matter of degree. Over a period of time, employes become aware of a consistent individual pattern—the pattern either of right decisions, wrong decisions, or percentage decisions. Once this pattern becomes clear, the executive's future is pretty well determined because he becomes indelibly branded in the minds of those associated with him. Judgment, like everything else, is primarily a matter of balance because it involves the right combination of intelligence, attitudes, emotions, and sensitivity to people and to environment. Our forefathers used to call it character. Every facet of a man's life, whether public or private, inevitably bears upon the judgments which he makes. Hence, in the practical, realistic sense, the person with good judgment is the person who is integrated.

Judgment differentiates administrators more than any other factor. Is a man a good strategist? He will be found to have good judgment. Does he inspire confidence and respect, create a sense of stability and contentment, cause his employes to stake their bottom dollar on his being fair? He has judgment; he is an integrated person. Does he "guess right"? Then he combines knowledge with a sense of fitness. The man who is warped, full of revenge, bitterness and personal frustrations, cannot escape the temptation to vent his aggressions on his subordinates. His mental, moral and psychic equipment does not add up to balance, his judgments are poor. He may dominate, but he cannot rule men's loyalties. He may seem to succeed materially for a while but he leaves the institution weaker than he found it. A successful program is the extension of an integrated personality.

Cooperative Training—Dare Management Try It?

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Introduction—Why?

THERE is a vast difference between the services that most managements are getting out of their subordinate executives and supervision and what they could get. The causes of the failure to obtain the greatest possible supervisory effectiveness vary with the company, but in the final analysis they usually add up to the feeling on the part of supervision and lower executives that they are not a part of management and have no voice in management's decisions. "Their's but to do or die, their's not to reason why." This paper will describe a cooperative training program which did much to close that gap in those cases where it was effectively carried through.

If management needs any evidence to indicate its failure to establish sound relations with its subordinates, it need only look at the movement on the part of supervision to organize. Even serious discussion by the supervisors in any company as to whether they should organize or not constitutes an indictment of management's previous behavior toward them. When supervisors have to organize and use the threat of the strike to obtain just treatment, the management outlook and policy have been seriously ineffective. In most companies, I am glad to say, the situation has not developed so gravely. However, even there the problem of "supervisory management" has been so poorly handled that most managements are losing a large proportion of their supervisors' potentialities.

Many managements where the foremen are not unionized or openly considering that step may feel that this condition does not exist in their company. Let such managements beware lest they be guilty of wishful thinking. During the last four years I have personally conducted training programs for supervision in seven different companies, ranging in size from 2000 to over 150,000. In not one of them did I find that a majority of the supervisors were as effective as they should have been or that they felt they were truly a part of management with real responsibility. This situation can be corrected but it takes a "big" management to do it, a management that can learn from the suggestions and criticisms of its own people; that can "take it, not just dish it out." Many managements today are not willing even to listen to unpleasant facts about their policies and practices from their subordinate executives and supervisors. Any criticism of that nature must be given in sugar-coated form. Moreover the rank and file supervisors never come in close enough contact with management to know what a vice president looks like. It is little wonder that the supervisors are organizing to attain, as their workers have, the goals of freedom of speech and justice of treatment. Thus it is by reason of these past mistakes and poor relationships still existing today that the training program here described would be a *daring* experiment for many managements.

What?

What is needed? A striking and resultful means of overcoming the gap between management and the supervisors.

The traditional methods have failed. It must be some type of program which will jar management, the lower executives and the supervisors loose from their past habits of thinking about each other and start them in new grooves of thought about each other and the company. The best term to describe the method is COOPERATIVE TRAINING. It will not do the job in and of itself. It will put a bridge over the gap and judicious follow-up on the part of an alert, wise management can then consolidate the gains.

How?

The fundamental machinery of the program is the cooperative analysis of a company's policies and practices in the light of its problems and needs. This analysis is made for top management by selected lower executives and supervisors from every department and supervisory classification in the company. It is conducted as independently as if they were a group of outside consultants. Completely free and untrammeled discussion must be permitted to all who are chosen to

participate. Other important goals may be reached at the same time but these must be subordinate to the main one of obtaining a complete picture of what the lower executives and the supervision are thinking and what they advise. Their opinions and recommendations are first embodied in preliminary reports prepared by sub-committees. These are synthesized in a Final Report to Management. This is usually prepared by all the chairmen of the sub-committees and represents most carefully considered opinions and suggestions of the entire group selected.

The topics covered in one company will illustrate the general type of problems analyzed:

1. Personnel Policies and Attitudes Necessary Today
2. Putting Personnel Policies and Practices into Effective Operation
3. Merit Rating
4. Promotions and Transfers
5. Employment Policies and Practices
6. Training and Education
7. Employe Services
8. Discipline
9. Grievances
10. Wage Rates and Classifications
11. Management Control
12. Follow-up
13. Final Report to Management, approved by entire conference group

Reports Nos. 1 and 2 have covered the same topics in all companies. No. 1 presents ideal policies and attitudes without regard to practicality; No. 2 asks how far these goals are being realized in the company and suggests how far they should be carried into effect practically. Each conference group furnishes two committees which prepare Reports Nos. 1 and 2. In this company the entire conference was divided into six groups. Thus Report No. 1 was prepared independently by six different sub-committees, likewise Report No. 2; the other Reports, except the final report, were prepared by only three committees, as more than three reports cannot be adequately discussed in the same session by the various groups.

All the groups prepare Reports Nos. 1 and 2 in order to obtain the most complete possible airing of all problems in the company, because it is in line with the subjects covered by most of the first two reports that the topics treated by the various subsequent committees are assigned. The actual titles of reports to be made in a company can only be tentatively inserted in the program before committees Nos. 1 and 2 have reported. The tentative schedule drawn up before the start of the program in the company previously referred to is included as an Appendix. The reports on Employment Policies and Practices, Wage Rates and Classification, and Management Control, it can be seen, were added as a result of the first two general reports, while the emphasis in the follow-up report was changed from the appraisal of training results to the problem of follow-up for the company as a whole. Such changes must be expected and allowed for in the schedule.

The reading assignments in the schedule are chosen to provide a means for the supervisors to improve in those points where top management feels there is need. Those most applicable to the solution of the particular problems in the company concerned and those deemed most provocative of fruitful discussion by the group should be chosen. Usually the general conference leader selects the assignments he thinks are suitable and presents these to management and/or the personnel director for approval. The reading assignments shown in the schedule reproduced in the Appendix might thus be different in another company where management desires improvement in other sectors.

I emphasize that this type of joint training is fundamentally different from the usual type of supervisory course. The type of supervisory training thus far in vogue has stressed routine duties and functions of the supervisor i.e. discipline, training methods, handling of grievances, safety, planning, etc. Though the so-called conference method is often used, the major points to be stressed are in the conference leader's outline. The type of program here described constitutes both an examination of what the executive or supervisor has in his head—as a result of both experience and training—and a test of his ability cooperatively to apply this knowledge to improving not only efficiency and teamwork throughout the company as a whole but also his personal effectiveness on his own job.

The schedule reproduced in the Appendix shows in detail why the training is cooperative. Management is endeavoring to put across certain improved attitudes, practices, and methods. But the process in this method is not one-sided. Management is definitely encouraging its subordinates to speak out and enlighten management—through the committee reports. A real difficulty in selling such a program is the fact that those managements which need it the most are the least likely to realize that fact. If they do attempt

it, they are the most unwilling to "see themselves as others see them" and to utilize the recommendations in a way to improve morale and cooperation throughout the company.

Typical final reports are not here included, because it is felt that they possess only local interest. However, mimeographed copies of some of the final reports are available on request, if any readers are interested in seeing what type of material may be expected in them.

Also, some of the course material was originally written for a higher level of intellectual grasp than some of the conference members may exhibit. In all cases, the main points in such assignments must be carefully explained. In some companies it may be wiser to present material written for a lower intellectual level. However, I personally prefer some difficult assignments. They aid in differentiating between those who must be spoon-fed mentally and those who can cut their own meat. Certainly those executives and supervisors, who after instruction fail to understand assignments, as well as do poorly on committee work or show little interest, can be written off as possibilities for future advancement. If not, they must have something outstanding somewhere else to counterbalance that weakness.

The program, it will be noticed, runs for twelve weeks and the meetings are scheduled for three times per week. The meetings last the minimum of an hour and maximum of an hour and a half. It may be thought that this is too much time. The principle we have gone on so far—and it seems to have demonstrated its value—is that good personnel and supervisory methods and techniques must be absorbed gradually. They cannot be sprayed on; they must be worked in by the experience of the recipients themselves. Moreover, the preparation of the committee reports takes time, if they are to be of real benefit. In one company, for example, the members of the final committee met five times per week for three weeks after the regular program was finished before they were satisfied with their final recommendations and conclusions. These meetings usually started around 4:00 P.M. and lasted till 9:30 P.M. When supervisors are willing to spend that much of their own time trying to work out sensible conclusions for the benefit of *their* company, the management of that company has in its possession a gold mine, whether it knows it or not. But the main point I wish to stress is that, though time is truly important today, there are some things in changing attitudes which must mature slowly.

By Whom?

The conference members should be drawn from all departments—manufacturing, sales, engineering, administration, etc. One of the most valuable contributions the program can make is better understanding and cooperation among the members of the different departments. For this reason the representatives of each department should be distributed equally throughout the various conference groups, so that each group will be a small cross section of the entire company.

Likewise, all classifications of supervision below that of a plant superintendent or its equivalent should be represented. The same is true of all the shifts, though it may be hard to include representatives of the third shift. There is no need to try to have proportional representation for the different classifications; the important point is to make sure that the point of view of each classification is adequately represented.

The personnel department, however, due to the nature of the program, should be more completely covered than any of the other departments. This would include all the section heads (i.e. employment manager, officer manager, the assistant directors, safety engineer, chief wage and salary analyst, the training director, etc.) along with employe counsellors, particularly the women counsellors, and perhaps some key members of the clerical staff. The value to the personnel staff of getting a close-up picture of the reactions of the mass of the supervisors to most of their activities can hardly be over-estimated. After all, the major problems of most companies today lie in the broad realm called "human engineering" and the personnel department should be the demonstrator and the instigator of the best personnel principles and practices. Without close touch with the operating departments, their wishes, and needs, there can be no effective fulfillment of these purposes.

How Many?

The percentage of the executive and supervisory personnel covered depends on the specific aims of the program. (1) If analysis of company policies, organization, and practices is the primary aim, and the education of the mass of supervision secondary, the program should be aimed at only the key personnel among the minor executives and the supervisors. (2) If both analysis and education are considered of equal importance, the coverage should be broadened until

it includes all those considered to be definite supervisory assets either now or likely to be at some future date.

For the first aim (analysis and key personnel), the percentage of 5% to 10% of the entire executive and supervisory force has proved satisfactory for companies of 4000 to 50,000 total personnel. These may be under one roof or in various plants in the same area, close enough together to be included as one conference unit. For units smaller than 4000 personnel, the percentage of coverage should be larger to ensure correct representation and thus it would probably be better in the smaller companies to make definite education of all able to utilize it a major aim of the program along with the analysis function.

If analysis and effective education are considered equally important in the program, every one thought able to benefit or really desirous of taking part should be admitted. The minimum should probably be at least 50% of the entire minor executive and supervisory personnel.

How Selected?

The method of selecting the conference members is also important. No one should be selected who is not able to benefit by the discussions and contribute to them. In every instance, an effort has been made to adhere to this principle and in large measure success was attained. However, in each case, the opinion of the superiors was the only criterion. No examinations of any sort were given to aid in the screening process. Where general education is a major purpose, this criterion—plus an active desire of the individual to attend—is sufficient. The conference discussions can be utilized as a screen to help bring to light both misfits and future possibilities. Under such conditions, one can afford to be liberal in allowing questionable cases to join in the program, if they desire.

Where the purpose is chiefly analysis, more diagnostic measures should be employed to select the best material available. Each person must be chosen because he has a definite contribution to make. The majority of the members should naturally be chosen for their balance and soundness of judgment. However, other supervisors have the reputation of being unduly critical. Certain of these should be added to the group to make sure all points of view are represented, provided they show up well enough on the intelligence and other tests to make it reasonably certain that they are not too biased to learn from the give and take of the discussions. No confirmed sceptics or obstructionists should be included as conference members against their will with the hope of "making decent fellows out of them." Past experience has proved the fallacy of this delusion.

If a company has an effective supervisory selection and training program, the selection of the conference members will be greatly simplified. Such a program will already have discovered strong and weak points about executives and supervisors, which will provide a ready basis for sound selection.

Those selected should be invited to contribute their efforts to the joint training through a suitable written invitation. The form used in one company follows:

DEPARTMENTAL COMMUNICATION
THE XYZ COMPANY

To;

The Company wishes to conduct a series of conference sessions for the purpose of a serious study and evaluation of our present personnel and supervisory policies and techniques—with a view to receiving recommendations for their improvement. For this purpose, representatives have been selected from all departments in the Company and all classes of supervision.

You have been selected as one of the representatives of this department. I have selected you for a definite reason and trust you consider it a privilege. The first meeting which you will attend takes place at _____ o'clock Tuesday, February _____, and after that your group will meet regularly from _____ to _____ on Tuesday, Wednesday and Thursday of each week for a period of twelve weeks. They will be held in the "Recreation Center." I shall be glad to help you arrange for transportation.

These sessions with their various committee reports can make a very important contribution to the present and post-war efficiency of our Company. I do not want any one of my supervision to accept this opportunity unless he is willing and anxious to carry his share of the load and contribute all he can, particularly to the soundness and balance of the various committee reports.

_____
(Department Head)

The assignment of the members to the various groups must also be skillfully done. As mentioned before, each department and each classification should be adequately represented in each section. However, men from the same department must be selected in a way that no one will feel hesitant to "speak his piece." For instance, it seems unwise to place a supervisor and his immediate superior in the same section. Complete ease, leading to untrammeled expression of opinion, insures the greatest possible success of the program.

The first and last meetings should be attended by all the conference members. For all other meetings the conference is broken up into permanent groups. Experience had shown that the best results are

obtained if the groups range between twenty and thirty. Thus a membership of 200 would be divided into seven or eight groups including the first and second shifts. The schedule of a total conference group of 185 members in one company was as follows:

8:30 A.M.	Day shift
10:00 A.M.	
11:30 A.M.	
2:00 P.M.	
3:30 P.M.	
6:00 P.M.	Night shift
7:30 P.M.	

All meetings except committee meetings have been held on company time.

Led By Whom?

For a conference membership up to 200, one leader should handle all of the groups. He naturally must be a man of broad experience and possess the ability to guide the discussions to productive conclusions while encouraging every member to participate actively. It is most important that he remember that the summary statements and suggestions must be those of the conference members and not his.

The program usually proceeds more smoothly and successfully if the leader is from the outside; for knowledge of the inner problems of the particular company is not essential at the start. That will come soon enough, if he has had wide experience in various firms. However, there is usually an executive inside the company who is well equipped to handle the job, if he can be spared from other work. He must also want to carry the program because of having realized its importance and the contribution it can make.

More than 200 conference members are too heavy a load for one leader. In that case three leaders are selected in each section, except the 8:30 A.M. section. This is led by the general conference leader, unless a committee report is scheduled, when the committee chairman takes charge as in all sections. The three leaders of each other section serve in rotation. The one to act as leader for that day attends the 8:30 session as a preparation for his session. In this way reasonably coordinated and competent leadership in all the sections is assured and the load is so distributed as not to be a burden.

Committee Functioning?

The first unit, where such cooperation training was carried through, was an installation whose policy had been set down in general terms by higher authority. The members of the No. 1 committee were given copies of this statement. Since they were to postulate ideal policies, they could improve on the statement but certainly not oppose any of the policies set forth. Otherwise no instructions were given as to the form or content of the reports. In other companies the committee chairmen were allowed to peruse hastily the final report from the first company but not to keep it in their possession. In general, the purpose, as can be seen, is to allow the minor executives and the supervisors to bring forward what ideas and recommendations they wish without influence from any source. The theory back of the program is that the various points of view represented in the different committees will ultimately produce the truth.

Every conference member must serve on at least one committee.

Committee meetings usually are held one half on company time and one half on the supervisors' own time.

Three committee reports, as previously stated, are prepared simultaneously on each topic except the first two topics, on which all groups prepare separate reports. The Final Report is naturally a single report.

When total membership is too large to permit each member to serve on at least one committee when only three reports are written, more than three reports may be prepared but no more than three should be presented for consideration at one session, as that is the largest number the members can profitably compare in session.

All reports should be completed in time to be mimeographed and handed out early enough to be read before the discussion of that topic.

The final committee is composed of all sub-committee chairmen or, if that makes too large a group, of chairmen turning in the best and second best reports on each topic. These can be decided by the reactions of the sections to the reports. In case of doubt the conference leader can use his best judgment. If anyone feels agrieved, let him serve. All topics, classifications and departments should be represented on the final committee.

Plenty of time must be allowed for the composition of the Final Report—remember that in one company it took three weeks, meeting five nights per week, 4:00-10:00 (1 hour for supper), after the regular schedule was finished.

At least a three-fourths majority should be required for adoption of the Final Report. Every conference

member must have a chance to vote. An auditorium large enough for the entire conference membership to meet and discuss the report should be secured.

Management's Role?

From time to time throughout this paper the role of top management in relation to the joint training program has been noted. After deciding on the topics to be emphasized in the way of training and authorizing, even encouraging, complete freedom of expression by the committee members, management has nothing to do until the final report is presented unless the discussions disclose areas of false information which cannot be cleared up by the conference members themselves. Any such areas should be disclosed to management by the general conference leader and the correct information supplied the conference groups.

In any event, managements' chief concern is with the Final Report, possible action on its recommendations, and follow-up of the general educational work of the program.

A. *Appreciative Reception of Final Report*

Proper reception of the Final Report is important. Complete acceptance is not expected but real appreciation and follow-up on likely recommendations are. Management should receive the Final Report officially at a big meeting, perhaps including dinner.

Management must explain why recommendations based on false premises cannot be carried through. This is a further measure of necessary education. If so large a group of supervisors are reasoning incorrectly the situation is serious and needs rectifying.

B. *Careful Follow-Up* of (1) recommendations (2) job behavior of conference members.

(1) Management should put into effect all those recommendations which are practical. After six months or a year it may be wise to call the entire group together to report on what has been done and discuss further progressive joint moves.

(2) Definite follow-up of the conference members must see to it that they put into practice the improved supervisory techniques they have absorbed and aid in carrying out better personnel methods and finer teamwork throughout the entire company. The follow-up procedure will have to be adapted to the company, but without efficient follow-up much good from the program will be lost.

Many companies may find that, in addition to the general follow-up of the recommendations evolving from the cooperative training program, the introduction of a system of individualized executive and supervisory selection, training and follow-up is necessary to capitalize most effectively on the gains of the program.* Certainly executives and supervisors are human and need cooperative guidance and constructive individual advice, if efficient company operation is to be guaranteed.

What Results to Expect?

The results naturally depend on the attitude of management and the personnel department and the use they make of what they find out. By "use" I mean chiefly *action* on the recommendations or recognition of them and careful *follow-up*. Critical analysis of management's behavior, policies, and methods must be expected and "taken" objectively. If in a company a single, strong member of top management takes certain suggestions personally and tries to soft-pedal them, he can kill most of the possible benefits.

The first series of conferences was conducted in October–December, 1943. The following statement by the Personnel Director indicates the results obtained:

> "Now that sufficient time has elapsed to place an objective evaluation on the course, I am firmly convinced that, in a large measure, it served the purpose (analysis of policies and practices and education of key personnel) for which it was intended. The awareness on the part of the supervisors who took the course of their responsibility in human relations has been definitely noticeable in the same degree that it was lacking prior to this training.
>
> "Tangible evidence of its effectiveness can be found in the turnover rate for the past year. It is substantially below the national average and a 50% improvement over this installation's experience during the years 1942–43. Obviously the reduced turnover is not due to the course alone but it definitely did help "sell" recognized personnel practices and gave them acceptance.
>
> "The summary report required in the course made supervisors feel that they were part of management, and, accomplishing this, served one of the most important functions of supervisory training."

Results as beneficial as these are possible in almost any company under present conditions of operation—provided its management dares to carry through *cooperative training* sincerely and open-mindedly and actively follow it up.

What does your company dare to do with a procedure along these lines?

* One type of such a system is described in "Individualized Executive Selection, Training, and Follow-Up"—Personnel Series #89, American Management Association, 1945.

APPENDIX

University of Pennsylvania
Engineering, Science, and Management War Training
Production Management Division
Personnel Relations and the Supervisor

THE XYZ COMPANY

Tentative Schedule

PART I

Wartime Personnel Policies and Needs

Week	Session	Subject	Preparatory Reading
1st	(a)	Need for Changed Attitude Toward Workers	Joint meeting of all Conference members; "The Why and The How" from "Mainsprings of Men" by Whiting Williams, Chapter I, pp. 1–17, Chas. Scribners Sons, N. Y. 1925
	(b)	What Workers Have a Right to Look For in Their Jobs	"What the Worker Wants in his Work" from Whiting William's "Mainsprings of Men" Chapter IV, pp. 56–80
	(c)	What Workers Have a Right to Look For in Their Jobs (concluded)	"The Worker and His Employer" from Mainsprings of Men, Whiting Williams, Chapter VI, pp. 113–139
2nd	(a)	What Management Should Give the Workers	"The Foreman—A Leader or a Driver" from "Workers' Emotions in Shop and Home" by Rexford Hersey, Chapter XI, pp. 217–242—University of Pennsylvania, Press, Philadelphia, Pa., 1932
	(b)	Case Studies of Worker Adjustment	Analyses by Conferring Members
	(c)	Personnel Policies and Attitudes Necessary Today	*Report* by Conference *Committee*, followed by discussion
3rd	(a)	Putting Personnel and Company Policies into Effective Operation	*Report* by Conference *Committee*, followed by discussion
	(b)	Discussion of Principles Evolved Previously	Pertinent Problems in the company as brought out by the two previous reports to provide basis for subsequent reports

PART II

Analysis and Evaluation of Effectiveness of Supervisory Carry-Through of Present Personnel Policies

Week	Session	Subject	Preparatory Reading
3rd	(c)	Employment Records	"Employe Records" from Studies in Personnel Policy, No. 38, National Industrial Conference Board, pp. 68–72
4th	(a)	Principles of Proper Placement by Supervisors	"A Monotonous Job in an Emotional Crisis" from "Workers' Emo- and Home" by Rexford Hersey, Chapter X, pp. 197–217.
	(b)	The Interview as a Supervisory Tool	"Psychological Processes in the Interview" from The Journal of Social Psychology, article by Ralph F. Birdie, Vol. 18, No. 1, pp. 3–31, 1943.
	(c)	Special Problems of Selection and Placement Regarding Veterans, Women and Negroes	"Women in Factory Work" from The Conference Board Management Record, Article by Jerome H. T. Kidder, Vol. IV, No. 5, pp. 129–135—1942 "The Technique of Introducing Negroes into the Plant" from Personnel (A.M.A. Publication) Article by Herman Feldman, Vol. 19, No. 2—1942, pp. 461–466.
5th	(a)	Individual Problems of Selection and Placement; Introduction of New Worker	Rule Book: Employee's Agreement; Questioning of New Workers as to the induction experiences
	(b)	Correct Classification of Jobs	"A Case History in Wage and Salary Administration" from Personnel (A.M.A. Publication) Article by Samuel L. H. Burk, Vol. 15, No. 3, pp. 93–128, 1938
	(c)	Merit Rating	*Committee Report* with Conference discussion
6th	(a)	Promotion Policies	*Committee Report* with Conference discussion and "Is a Low I. Q. a Handicap to Worker or Employer" from "Workers' Emo-

Week	Session	Subject	Preparatory Reading
			tions in Shop and Home" by Rexford Hersey, Chapter VII, pp. 110–143
	(b)	Industrial Management and Employe and Supervisory Training and Efficiency	"Industrial Management as related to On-the-Job Efficiency" Special assignment prepared for Engineering, Science, and Management War Training, Philadelphia area by Rexford Hersey
6th	(c)	Analysis and Evaluation of Training Methods and Programs Employed in Company	*Committee Report* with Conference discussion
7th	(a)	Applying the "Follow-up Principle" to the Company	"Technique of Training Program Follow-Ups" Modification of pamphlet "Following Through with Job Instruction Training," T.W.I., War Manpower Commission—and *Committee Report* with Conference discussion
7th	(b)	Proper Conception of Foreman's and Executive's Job in Relation to Effectiveness of Personnel Policies Essential	*Group discussion* presided over by Leader previously chosen by group.
	(c)	Poor Preparing and Organizing Lower Efficiency	"Production Planning and Control" Special assignment prepared for Engineering, Science, and Management War Training, Philadelphia area by Bernard B. Goldner and Robert J. Riddle.

PART III*

Supervisory Problems in Dealing with Individual Workers

Week	Session	Subject	Preparatory Reading
8th	(a)	The Little Things Hurt Most (*Talking*)	*Group discussion* presided over by Leader previously chosen by group.
	(b)	Worries Outside Make Trouble Inside	"Youth and Its Problems" from Workers' Emotions in Shop and Home by
		(*Counseling*)	Rexford Hersey, Chapter V., pp. 62–84—University of Pennsylvania Press, Philadelphia, Penna.—1932
	(c)	The Other Fellow's Shoes (*Emphathizing*)	*Group discussion* presided over by Leader previously chosen by group.
9th	(a)	Your Boss is Human (*Observing*)	"Industrial Psychology" Special assignment prepared for Engineering, Science, and Management War Training, Philadelphia area, by John R. Roberts
	(b)	Hurt Pride Stalls Cooperation (*Collaborating*)	*Group discussion* presided over by Leader previously chosen by group.
	(c)	True Discipline is Education. Not Vindicativeness (*Disciplining*)	*Committee Report* with Conference discussion.
10th	(a)	We and Other Taxpayers are Paying for Our Products, So What? (*Carrying Through*)	*Group discussion* presided over by Leader previously chosen by group or *Committee Report* with Conference discussion.
	(b)	A Grievance Honestly Expressed is Like a Traffic Light (*Learning*)	*Committee Report* with Conference discussion
	(c)	He Leads Best Who Manages Himself Best (*Leading*)	*Group discussion* presided over by Leader previously, chosen by group

* In some cases, much of this part was devoted to the preparation and discussion of the sub-committee reports.

PART IV

Maintaining an Effective Working Force

Week	Session	Subject	Preparatory Reading
11th	(a)	Labor Turnover; Importance of Exit Interview	"Turnover and Force Records" from Studies in Personnel Policy, No. 38, National Industrial Conference Board, pp. 66–68
	(b)	Hours of Work and Reducing Absenteeism	"Hours and Efficiency in British Industry" from Monthly Labor Review, June 1941, pp. 1337–1346—and *Group discussion* presided over by

Week	Session	Subject	Preparatory Reading
			Leader previously chosen by group.
	(c)	Employe Service Activities—Personnel Counsellors	*Committee Report* with Conference discussion
12th	(a)	Heading Off Labor Trouble	* "Day-to-Day Factors in Labor Relations" Special assignment prepared for Engineering, Science, and Management War Training, Philadelphia area, by Rexford Hersey
	(b)	Measuring and Building Morale	"What Can a Foreman Do to Build High Morale in His Department?" The Conference Board Management Record, Vol. 1, No. 6, pp. 85–96, June 1939. (Essays of greatest value are selected from this article)
	(c)	Review and Final Recommendations	*Joint Report by all committee chairmen to Management;* approved by entire conference group.

* Sample copies of mimeographed material prepared especially for Engineering, Science, Management and War Training and of chapters (Mimeographed) from "Workers' Emotions in Shop and Home" which is out of print, will be mailed on request sent to the author.

For More Profitable Debate

(*Continued from page* 138)

2. Laissez faire never existed outside the textbooks. Historically, factory laws and free trade were parallel British developments. Roads and canals were built by public authorities or with the aid of public grants and after them came public regulation.

3. Government "interference" in business is likely to increase, not decrease, because modern society and the modern apparatus of production and distribution are growing more and more complex. Automobiles need public roads, and aviation requires public airports. Radio frequencies must be allocated by the government because no "free market" can increase the number available. Conservation of natural resources entails restrictions in freedom. *The problem is not "interference" but the nature and purpose of the "interference."*

4. This expansion of government in spheres close to business is, indeed, a threat to political and economic freedom. This threat does not, however, arise from the malevolence but from the very nature of government. It can be met by keeping the government's discretion to the irreducible minimum even though that minimum may prove quite substantial and gradually expanding.

5. Business cannot long continue—without destroying the public's faith in the sincerity of business and in economic freedom—to combine the praise of "free enterprise" with backstage intrigues for government subsidies, special protective legislation, and congressional tax and tariff privileges.

6. Private enterprise is unable to cope with a multitude of socio-economic problems. It cannot operate satisfactorily in the unprofitable realm of public health, education, social security, and other fields of public service and welfare. Certain types of investment and development like TVA and Grand Coulee are clearly beyond the scope of business as we know it.

7. History shows that the problems of government, business, and society cannot be solved by pure logic. They must be solved by compromise and common sense. The creation of the Federal Reserve System is an excellent example of a common-sense solution to a problem that private enterprise could not meet unaided.

8. After the war, both business and government jointly face one cardinal problem: control of the business cycle. Curbing the business cycle (i.e., maintaining as even a state of high employment as possible) implies that the peak of a boom must be flattened in order to raise the bottom of depression. Government will have to pass a major test after the war; it will have to gain support for unpopular measures in curbing the boom. Government is unlikely to find that courage unless it can lean on well-considered and forthright business support.

FORTUNE, *July* 1944.

The Changing Position of Foremen in American Industry*

THE last four or five decades have brought important changes in the authority and responsibilities of foremen and in their position in management. These changes have been the subject of many discussions at business conferences and have produced an extensive literature in business publications. The Panel does not presume to make findings concerning the extent to which these long-term and general tendencies have affected conditions in the plants involved in the cases before it or how they have affected the attitudes of the foremen and other supervisors involved in these cases. The Panel, however, is deeply impressed by what seems to be a conspicuous disproportion between the number and seriousness of the individual complaints of foremen put into the record on the one hand and by the evident interest of foremen in organization on the other. It believes that the state of mind of the foremen can be properly understood only in the light of the position of foremen in American industry. Four conditions of great importance seem to stand out:

1. Long-term changes in the responsibility and authority of foremen.
2. The uncertainty of the foremen concerning their terms of employment and their lack of participation in formulating those terms—in ever sharpening contrast with the opposite trends in the case of the rank and file workers.
3. The lag in the adjustment of the compensation of foremen which occurred early in the war.
4. The insecurity of the position of individual foremen resulting from the great temporary expansion in the number of foremen in many more plants as a result of the war.

1. Long-term changes in the responsibilities and authority of foremen. For a long time the responsibilities and authority of foremen have been undergoing a slow change. Time was when the foremen in many plants were independent contractors. They operated only under the loosest type of production schedule. They hired their own men at rates of pay which the foremen-contractors themselves set. Even when the foreman was not an independent contractor, he operated under very loose production schedules. Furthermore, he was allowed considerable latitude in setting the rates of pay at which he hired men and in making changes in both day rates and piece rates. His authority to grant individual increases in compensation was often ill-defined, but it was rarely questioned. Even greater was the foreman's authority over hiring, promotion, demotion, discharge, discipline and his authority to make transfers within his department, to assign overtime, and to permit men to take time off. The foreman did his own hiring. He decided whom to promote or whom to demote, and he discharged and imposed other discipline at will. The doors of plant managers and presidents were in theory open to anyone who wished to complain about the action of foremen, but the open door was rarely entered. In any event it was up to the aggrieved workman to make his complaint to the higher management. The foreman might be overruled, but in his dealings with individual workmen he usually acted on his own responsibility and he did not have to obtain the approval of a superior before putting his decision into effect.

The independence of foremen was undermined first by the technical and economic requirements of modern methods of production. As manufacturing operations were broken down and placed in specialized departments, the coordination of production among departments became essential. Departmentalized production without well-timed and coordinated production schedules became increasingly serious as idle machines and idle men became more costly. Production under such conditions became intolerable when moving assembly lines were introduced. The routing and scheduling of production in each department so as to obtain the desired overall coordination necessarily deprives departmental foremen of some of their independence and authority to run their own departments. Then some found too that they were held to higher standards of perfection in their output, especially in assembly operations, where the parts had to fit together in the final assembly. These more exacting standards, which the process required, produced important modifications in the duties of

* This article is reprinted with permission from the report of a special Panel appointed by the National War Labor Board to hear certain cases involving unions representing foremen. The members of the Panel who wrote this report were Sumner H. Slichter, Robert D. Calkins and William H. Spohn.

foremen. For mass production industries, where the changes here described have been most marked, it is no exaggeration to say that the function of the foremen has changed fundamentally in the last thirty years. Whereas he was formerly an executive with considerable freedom of action, he is now an executor carrying out orders, plans, and policies determined above.

The independence which foremen retained over personnel was not long to endure. The latitude permitted foremen in fixing the compensation of individual workmen and in setting or changing piece rates naturally produced inequalities in the earnings of workmen of comparable skill in different departments. Likewise, the freedom of foremen to act on their own responsibility in hiring, promoting, or demoting workmen, in assigning work, in making layoffs, and in administering discipline produced diversities in labor policies. It was inevitable that management must sooner or later establish central controls over wages, central machinery for setting standards of production and piece rates, central machinery for hiring, uniform policies to govern promotion, demotions, sick leave and sick pay, layoffs, and central review of discipline. Indeed, centralization of policy-making and the development of central controls over the execution of policies have been among the most important trends in the evolution of management during the last forty or fifty years.

Centralization of control over production seems generally to have occurred earlier than centralization of control over wage and labor policies.

Although the ultimate centralization of control over production, wages, and labor policies was inevitable, three principal events have been important in accelerating this development. These were: (1) the first World War; (2) the depression of the nineteen thirties; and (3) the rapid rise of trade unions.

The first World War greatly increased the importance of labor problems. Numerous labor shortages developed and properly qualified men became difficult to find. Labor turnover skyrocketed and was quite commonly 200 or 300 per cent of the average work force.

Frequently adjustments in wage rates were necessary to meet the rapidly rising cost of living. Trade union membership in the United States doubled between 1916 and 1920. The first move of managements to meet these problems was the establishment of a central employment department through which men were hired or at least selected for reference to foremen who requisitioned help. Managements soon discovered, however, that a central employment department was not enough. Specialized personnel departments were established to help higher managements institute company-wide wage and personnel policies. This change meant (1) that the discretion of foremen was narrowed, and (2) that foremen were held to higher standards of performance in dealing with men. For example, although foremen were permitted to discharge from their departments, discharge from the company was made subject, in many cases, to the approval of the superior of the foremen or of the personnel department. Men resigning were given a separation interview in the personnel department before receiving the final installment of their pay. In this way some effort was made to check up on the handling of men by foremen. Some companies instituted shop committees to which aggrieved employees might take their complaints—an additional control upon foremen.

The large layoffs required by the depression of the thirties stimulated the establishment of central layoff policies. Section 7A of the National Recovery Act led to the widespread formation of employee representation plans under which actions of foremen in discipline cases and other actions complained of by employees were subject to review.

Of great importance in affecting the status of foremen was the rapid rise of trade unionism, stimulated first by the National Industrial Recovery Act and later by the Wagner Act. Most managements had been strongly opposed to the spread of unionism, and most foremen had reflected the opposition of higher management. When unions won elections, were certified as bargaining agents, and negotiated trade agreements with business enterprises, a large part of the responsibility of dealing with newly recognized unions and of making trade agreements work fell upon the foremen. In some instances recognition of the union, even though required by law, led the foremen to feel that they had been deserted by higher management. It frequently happened that, during the first year or two under contract with a rank and file union, foremen received little help from higher management in administering the agreement. Sometimes higher management neglected to give foremen copies of the agreement negotiated with the rank and file unions. On occasion a foreman had to obtain a copy of the agreement from a shop steward in his department. Likewise, many managements were slow in developing arrangements for communicating to

foremen interpretations of the agreement made by higher management or agreed to by higher management and the union in settling specific grievances. Virtually all agreements provide that the first step in adjusting grievances is for the aggrieved worker or the shop steward or both to take up the matter with the foreman of the department. Instances in which this first step were skipped were by no means infrequent. Overzealous shop stewards in some cases challenged the authority of foremen to run their departments. Some higher managements were prompt and vigorous in backing the foreman; others left him to work out his problems for himself. When renewals of agreements were negotiated, sometimes the foremen had changes explained to them and sometimes they did not. In some companies foremen were promptly given careful instructions in handling grievances; in other companies, they were not. Great progress has been made in the last few years by managements in correcting the above administrative shortcomings. An appraisal of business literature and of the reports of discussions in conferences on labor relations leaves no doubt that there was a time when these administrative deficiencies were fairly prevalent.

These long-term trends in the foremen's responsibilities and authority may be summarized as: (1) a drop in the foreman's authority, (2) a drop in the foreman's responsibility for making policies, and (3) a rise in the foreman's responsibility for executing policies.

These trends do not mean that the foreman's job is becoming less exacting or that it can be filled by less competent people. On the contrary, the need for able men in the posts of foremen seems to be growing. The foreman may be given more and more ready-made policies to execute, more and more standard practices to observe in executing them, and more and more help from a variety of service departments, but he is also held to higher and higher standards in meeting production schedules, in maintaining standards of quality, and in dealing with personnel. Furthermore, higher management cannot escape dependence upon the foreman's knowledge of men and conditions and upon the wisdom and fairness of the foreman's judgment. On many matters the foreman may only recommend action, but his recommendations must usually be accepted by superiors who know too little about the circumstances of specific cases to reject the foreman's recommendation. Hence, no matter how well conceived the company's production and labor policies may be at the top, they are in fact no better than they become at the hands of the foremen who execute them.

Despite the exacting nature of the foreman's responsibilities, a large proportion of foremen sincerely do not regard themselves as part of management. This is a natural result of the growth of central management and the development of foremen into executors of policies and recommenders of action rather than makers of decisions. The foreman is not ordinarily consulted when the policies that he must execute are formulated, or when the standards that he must observe are drawn up. He often receives his instructions without explanation. Many companies, it is true, have foremen's meetings at which the foremen may ask questions concerning their responsibilities and their problems. Too frequently, however, these meetings are occasions on which foremen hear from their superiors, not their superiors from the foremen. The foreman is more managed than managing, more and more an executor of other men's decisions and less and less a maker of decisions himself.

The best way to document these observations is through excerpts from articles in business journals and from talks at business conferences which all originated before any of the cases before the Panel arose.

Industry's Forgotten Man by Norman G. Shidle and Leslie Peat in "Forbes" May 15, 1940, p. 14.

"Causes underlying the problem are not hard to find. Fast-spreading unionization has brought production employees radically increased wages, collective bargaining as a right, and official grievance procedures which insure the individual a hearing without fear of losing his job. But to foremen, in many cases it has brought lessened prestige (as union representatives dealt directly with high management representatives), decreased authority, increased personnel difficulties, and far less in pay advances than has gone to the men working under them.

Hard Facts to Swallow

"These changes came right on the heels of depression-born revisions in the status of foremen and assistant foremen which had already been unpleasant to swallow. Even before the collective bargaining procedures of recent years, management itself had modified the absolute monarchism of its lowest rank supervisors by intensified activities of personnel and employment departments. When the depression

came along, many foremen and assistant foremen went from the weekly to the hourly payroll. They were laid off on the same basis as production men.

"Later when the pay of production workers began to skyrocket, the pay of foremen failed to keep pace. And more than a few foremen have been wounded in dignity and spirit, as well as in pocketbook, by the increasing intensity of management's attention to the production worker; and the resulting, even though unintentional, lessening of concentration on the status and functioning of the foremen as a management representative."

When Foremen Joined the C.I.O. by Ira B. Cross, Jr. (Graduate School of Business Administration, Harvard University) in "Personnel Journal" published by Personnel Research Federation, February, 1940, p. 277.

"All in all, the foremen were becoming the "Forgotten Men" of industry. They no longer controlled the employment of the men who worked under them; even if they did recommend the discharge of an incompetent worker, the union usually could get him reinstated; they no longer had a say in the setting of production standards; they were the goats when the employer had to conserve his working capital; their hours of work were sometimes long and irregular; they had no capital; they had no assured job protection or seniority. In general, they were getting pretty well kicked around by both sides."

Union for Foremen? by Frank Rising (former Labor Editor, *Business Week*) in "Personnel," February, 1940, pp. 94–95.

"From foremen themselves, and from some business executives who are very anxious to promote more harmony, we can get some of the complaints:

(1) The foreman quite often feels that he is of little importance; just another guy in the shop. True, management praises him constantly as "the key man," gives him tracts to read, talks about him in flowing terms at foremen's club meetings, shows him movies about how to be a real leader. But it changes policy without consulting him, gives him rules to follow and then sometimes fails to back him up in a tough labor relations spot, doesn't ask for and doesn't want his advice.

(2) The foreman has to live. He has a wife and family; he wants his cut. During the rush of workers into unions some wages have gone up 20 per cent to 30 per cent. Has the foreman's compensation kept pace? It has not, at least not with any regularity. He is 'caught in the middle' between two great bargaining forces and often feels that he is losing out by being an individualist. (Incidentally, this is the basis for white collar organization, too.)

(3) The foreman is quite often only a temporary gang boss. In some shops which have large seasonal production bumps, a man can be a foreman for awhile, and then return to the bench. He's a member of the gang at heart and by training and even may be a member of the union already. Who can reasonably expect him to shift back and forth from one side to another of a management-labor fence?

(4) The foreman actually *is* an employee, and entitled to come before the Labor Board in that capacity. At least, he is an employee in the same sense that the president of the company is, and the law doesn't define the term. Then, if others are entitled to take action to get job security and wage preferment for theirselves, why isn't he?"

Who Gets Foremen? in "Business Week," December 16, 1939, p. 37.

"In the Middle," says Foreman

"The foreman himself argues that the Wagner Act guarantees all employees the right to organize and bargain collectively, and that he is an employee. Furthermore, the foreman has some complaints. He is 'caught in the middle' between organized labor and organized management, and feels that he is losing out in the resharing of profits which come from labor agreements. In some places union labor has advanced its wages 10% to 30%, while the foreman has been lost sight of.

"Again, the foreman argues that management *says* he is the savior of the shop, but doesn't back him up. Often the foreman is told to stick to a certain policy in bargaining with union committeemen on grievances, then sees management bow to the labor organization after the latter gets tough and strikes. Result: The foreman has lost most of his prestige in the shop, and a good deal of his faith in management's word."

Foreman Compensation, National Industrial Conference Board, Studies in Personnel Policy, No. 20, February 14, 1941, p. 1.

Introduction

"At present the problem of securing exemption of foremen under the Act seems to be overshadowed by the evergrowing problem of maintaining a fair differential between the foremen's income and that of the workers they direct."

Proceedings of the Fifth Personnel Institute, College of Commerce Conference Series, Ohio State University Publications, Number C-23, p. 12, May 12, 1943.

"Mr. W. E. Shurtleff (Apex Electric Mfg. Co., Cleveland, Ohio): I wonder what various firms have done that have foremen on salaries based on a 40-hour week and now are required to work, say a 60-hour week? To the workers, this constitutes a 33 per cent increase, but due to the salary freeze, foremen have not been able to get adjustments. As a result, the men are making more than the foremen, and the foremen in a lot of cases want to be demoted to machine operators, or are beginning to kick because they can't get into the union. It is quite a disturbing situation in a lot of plants, and one that will have to be solved."

What is Management's Responsibility to Foremen? by L. Clayton Hill (at that time Vice President of Manufacturing, The Murray Corporation of America, Detroit, Michigan) in "Supervision" August, 1940, p. 9.

" . . . Let us examine some of the conditions which influence the loyalty of the foreman.

"Particularly during the last three or four years, management has dealt directly with labor representatives in collective bargaining activities and has thus short-circuited the foremen. Too frequently the management does not keep the foremen advised of policies being discussed with union representatives. Practically no information is given the foremen regarding the progress of the discussions. Even when the policies and agreements are determined by collective bargaining, these are not always explained to the foremen. Quite often they get all their information from the union representative first. This certainly does not build a strong management-foremen relationship.

Needs Courage

"*Short-circuiting of the foremen may result from any one of several conditions.* Possibly it is because he does not know how to handle grievances. He prefers to pass the buck to the Industrial Relations Department because he lacks the courage to handle grievances himself. Maybe the company lacks confidence in him and encourages him not to play with fire. Or, in many instances, the policy involved is one requiring top management's decision. Only in the last instance is short-circuiting unavoidable."

The Foreman's Place in an Employee Educational Program by L. A. Appley. *The Role of the Supervisor in Labor Relations* by T. G. Graham, A. B. Gates, and L. A. Appley, American Management Association, in "Personnel Series," Number 33, 1938, pp. 27–28.

"Specialization and functionalization had been developing over a period of years, but with the depression came the opportunity for tremendous emphasis. Specialists suddenly sprang into being. Special surveys were conducted, and in each case the center of attack seemed to be the foreman or the supervisor, simply because he was in a position where all the activities of the organization were coordinated for the workers, and because through him final instructions were conveyed to the workers.

"Such specialization began to focus its attention upon the individual activities for which the foreman was responsible. The magnifying glass was directed on his methods of selection, his planning, his coordinating his costs, his handling of materials, his stores, his direction of employees, etc. Naturally, with individuals devoting full time to the consideration of specific features of the foreman's work, weaknesses were found. Any one of the specialists could have performed the particular activity which he was studying better than the foreman, but in some cases consideration was not given to the multiplicity of the foreman's functions. Therefore, the reaction began to develop that these things had to be done for the foreman, and one by one his responsibilities were slowly taken away from him."

Foreman's Loss of Prestige

"As a result there were many instances where the foreman became nothing more or less than an inspector. He lost prestige, influence, and authority. If that were the case, then does it not seem perfectly natural that when the labor crisis came the foreman was looked upon as an insignificant part in the picture? In the development of improved labor conditions over the past few years the tendency has been to appoint special representatives of the workers for direct dealing with top management—despite the fact that the foreman has the closest contact with the workers and is both their representative and the representative of management."

The Foreman and the Union by Don D. Lescohier, "Personnel" August, 1938, p. 19.

Short-Circuiting the Foreman

"Why should a foreman have this power and duty? The answer is, because *no one* should come between him and his men. If he is to maintain an efficient,

properly cooperating body of men in his department, the contacts of those men with the company must be continuously and almost completely through him. If the union can short-circuit him by going to the top management, his prestige in and control over his department are seriously weakened. The same thing is true if the top management short-circuits him by keeping all contacts with the union, including adjustments, in his own hands.

"Top management, especially in industries newly organized, is very apt to do exactly this, partly because foremen are so often inexperienced in dealing with unions or lacking in definite training that would fit them to handle, in cooperation with the union, the problems which arise in their departments. It is also in part due to an excessive confidence on the part of top management in its own ability to handle industrial relations matters, and to an overestimation of its own and an underestimation of its foremen's knowledge and understanding of these problems. Sometimes, of course, the top management is so baffled by the labor problems with which it is confronted that the head executives cannot believe that a subordinate might be able to solve such problems. Yet oftentimes that is so.

"It is neutral for the union to short-circuit the foremen (i.e., to go directly to the seat of power without stopping to negotiate with subordinate executives) especially if the foremen lack the power to say "yes" and "no." Unions will be willing to negotiate adjustments with foremen only if such a procedure is the clearly stated and firmly enforced policy of the company and if the foremen have the power to get down to brass tacks with the union and to make settlements."

Changing Functions of the Foreman, By Albert L. Kress (Assistant to the President, Republic Aviation Corporation), Better Industrial Relations for Victory, *Proceedings of the Twenty-sixth Silver Bay Industrial Conference*. National Council of the Young Men's Christian Associations, 1943, pp. 122, 123.

"The whole question of the foreman's responsibility and authority—hiring, discipline, firing—is no simple problem today. The fact that the foreman no longer has the time to do his own hiring, coupled with present legislation and executive orders relating to manpower, tends to complicate the problem of building up the foreman as manager of his own department.

"In many plants, the foreman still has responsibility, but there is being set up a corps of experts to decide a lot of things he used to decide, such as upgrading, wage rates and so forth. Even on the procedure of discharging an employee, instead of the foreman's telling a man that he is through, the employee may be called into the Industrial Relations Department, where the foreman tells his side of the story, and although initiating the action still lies with the foreman, he is not empowered to take direct action on a release.

"The important thing is to get the line organization to understand what is available in the way of expert assistance and then to make use of it effectively. Certainly, the management does not want to take away from the foreman responsibility or authority for making decisions at the point where they should be made; but, because the picture has become so complicated, it has been the trend in modern industry to develop staff organizations that will make available to foremen and others in the line organization specialists in particular fields to help them, such as time- and rate-study men."

2. The uncertainty of the foremen concerning their terms of employment and their lack of participation in formulating those terms. Foremen have observed the increasing definiteness with which the terms of employment and working conditions are specified by contract for the rank and file workers. Many foremen have been promoted during the War from the rank and file where such conditions existed. As foremen they found uncertainties concerning their rights and prerogatives. The rules or policies governing sick leave, vacations, promotion, transfer and demotions were often not in writing and were inadequately understood. They were sometimes not explained. Grievances typically had to be presented personally and without the assistance of a steward or the support of an organized group. This situation could be compared with the effective grievance procedures for the organized rank and file. The fact that all foremen were not treated alike aroused suspicions of discrimination and a feeling of insecurity. The lack of assurance that there were uniform rules uniformly applied was a source of dissatisfaction.

The foreman had little or no participation in determining the terms of his employment, nor did he have any representative speaking up for him in the councils of management to press his case. If such occurred, it was more likely a considerate superior than an interested representative. The whole relationship of the foreman to higher management was too remote to inspire a sense of participation either in

determining his own terms of employment or in formulating policies which he was obligated to execute.

This combination of conditions did not inspire self-respect nor lend dignity to the position of foremen.

3. The lag in the adjustment of the compensation of foremen which occurred early in the war. The war, with its large orders from abroad, its large orders from the American defense program, and eventually its enormous orders from the American war program caused the rank and file employees in most industries to work a large amount of overtime at one and a half times or even two times the regular rate. Foremen also were required to put in long hours of work. Many plants, however, had not made it a practice to pay overtime to foremen who were compensated by the month rather than by the hour. The foremen's stretches of overtime work were expected to be short and not to involve many extra hours. It was indicated that the foreman, however, had the advantage of ordinarily being kept on during hard times when rank and file employees were being dropped. The war, however, created a new situation for which the policies of many companies were not adapted. Eventually these policies were modified by many employers to include extra compensation to salaried foremen for overtime and Sunday work and in many instances for work on night shifts. Compensation for overtime and night work in many plants did not begin until foremen had put in large amounts of overtime and night work over a period of some months. A lag in the compensation for overtime and night work seems to have been important in arousing the interest of foremen in organization in 1942.

4. Insecurity in the position of individual supervisor resulting from the great temporary expansion in the number of foremen as a result of the war. The war has required a great increase in the number of supervisors in many plants engaged in war work, particularly plants in the metal working industries. Most of the new supervisors were promoted from the rank and file employees in the same plant. Many of them (probably most of them) had belonged to unions of rank and file employees. Many of the new supervisors, especially in the shipyards still keep up their membership in the rank and file unions and are even prominent in the affairs of the rank and file unions. Some of the present foremen had previously played active parts in the rank and file unions as shop stewards or as members of grievance committees.

The end of the war will see a substantial shift of employment out of manufacturing, and especially out of the metal working industries into other branches of industry. This will mean a great reduction in the number of foremen in many plants now engaged in war work. The reductions will vary widely from plant to plant, but reductions of half or more than half will not be uncommon. In some plants involved in the cases before the Panel more than half of the supervisors will be laid off or demoted.

The prospective reduction in the number of supervisors has introduced great insecurity into the lives of all foremen, both new and old. No one knows which supervisors will be kept after the war. The man of long service fears that he may be dropped in favor of younger supervisors with shorter service. As the end of the war approaches, the concern of supervisors over their future status naturally grows. They do not wish the policies which will govern the layoff, demotion, and transfer of foremen to be decided without their being consulted. Furthermore, each supervisor wishes an ample opportunity to present his case in the event that he is selected for demotion or layoff. And yet in some companies the prospect is that the layoffs, demotions and transfers of supervisors will be made by top management with little or no consultation with supervisors and with little or no opportunity for them to present grievances arising from layoff, demotion, or transfer.

MANAGEMENT FACTORS FOR FULL EMPLOYMENT

Annual Conference of the Society for the Advancement of Management

November 30 and December 1, 1945, Waldorf-Astoria, New York

Friday, November 30

MORNING SESSION

9:00 A.M.—Registration and Assembly. *Palm Room*

10:00 A.M.—**The Facts and the Outlook**

Starlight Roof

Remarks by the General Chairman

JAMES P. MITCHELL,
Director of Personnel and Industrial Relations,
R. H. Macy & Company, Inc.

Background of Growth in the United States

POPULATION, LABOR FORCE, HOURS OF WORK
PRODUCTION
OUTPUT AND INCOME

LEON HENDERSON,
Research Institute of America

The Outlook: Technology and Productivity

MECHANIZATION AND POWER
AUTOMATIC CONTROLS, ELECTRONICS, RADAR
TECHNOLOGY AND PROBLEMS OF 1950

HERBERT HARRIS,
Economics Editor, The Saturday Review

Technology and World Economics

RAW MATERIALS
SKILLS
POWER
NATIONAL INDEPENDENCE
WORLD INTER-DEPENDENCE

WILLIAM L. BATT,
President, S.K.F. Industries, and *American Member* Combined Raw Materials Board and Combined Production and Resources Board

AFTERNOON SESSION

2:15 P.M.—**The Management of Distribution**

Starlight Roof

SAMUEL H. THOMPSON, *Presiding*
Special Assistant to the Secretary, Department of Commerce, and *Assistant Director*, National Planning Association

Responsibility of Distribution to Full Employment

IS DISTRIBUTION A LIMITING FACTOR IN THE AMERICAN ECONOMY?
HOW CAN WE GET PEOPLE TO CONSUME RESULTS OF FULL EMPLOYMENT?
COORDINATION OF SALES AND PRODUCTION
HOW TO TAP OUR MARKETS
THE IMPORTANCE OF PRICE
THE HUMAN ELEMENT IN DISTRIBUTION

DR. PAUL H. NYSTROM,
Chairman, Central Council, National Retail Trades Association

The Efficiency of Present Day Distribution

DOES DISTRIBUTION COST TOO MUCH?

DR. LYNDON O. BROWN,
Stewart, Brown and Associates

7:00 P.M.—**Annual Dinner Meeting**—*Starlight Roof*

R. R. ZIMMERMAN, *Presiding*
President, The Society for the Advancement of Management

Business Plans for Maximum Employment

C. SCOTT FLETCHER,
Executive Director, Committee for Economic Development

Presentation of Awards: TAYLOR KEY—GILBRETH MEDAL—EMERSON TROPHY

Saturday, December 1

MORNING SESSION

9:00 A.M.—Registration. *Palm Room*

9:30 A.M.—**The Importance of Price Policy**

Starlight Roof
HOW DO PRICE CONTROLS CONDITION DECISIONS ON WAGES AND PROFITS?

ROBERT R. NATHAN, *Presiding*
Deputy Director in charge of Reconversion

Stabilization in the Transition Period
IMPLICATIONS OF TIGHT POLICY OR LOOSE POLICY

RICHARD V. GILBERT,
Office of Price Administration

Wage-Price Relationship

SOLOMON BARKIN,
Research Director, Textile Workers Union of America, CIO

How Can Costs Be Kept Down?
PRODUCTIVITY
SCIENTIFIC MANAGEMENT

C. CANBY BALDERSTON,
Dean, Wharton School of Finance and Commerce

12:30 P.M.—LUNCHEON MEETING—*Grand Ballroom*

JAMES P. MITCHELL, *Presiding*
General Conference Chairman, *Director of Personnel and Industrial Relations*, R. H. Macy & Company, Inc.

Labor-Management Cooperation

WILLIAM H. DAVIS,
Pennie, Davis, Marvin & Edmonds, *Counsellors-at-Law*

AFTERNOON SESSION

2:00 P.M.—**Labor-management Cooperation**

Starlight Roof
JOHN R. STEELMAN, *Presiding*
Special Assistant to the President of the United States

How Can We Achieve the Fullest Cooperation Between Management and Labor

CLINTON S. GOLDEN,
Assistant to the President, United Steel Workers of America

CYRUS S. CHING,
Director, Industrial and Public Relations, U. S. Rubber Company

FRANK FENTON,
Director of Organization, American Federation of Labor

GEORGE T. TRUNDLE, JR.,
President, The Trundle Engineering Company

JAMES P. MITCHELL, *General Conference Chairman, Director, Personnel and Industrial Relations*, R. H. Macy and Company

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BOOK REVIEWS

Wage Incentives. By J. K. Louden, John Wiley & Sons, New York, 1944, pp. 174. $2.50.

Production executives, industrial engineers, and teachers of management who read Mr. Louden's compact book will be well repaid. Even those surfeited with management articles are likely to say, "Here is a management book worth reading and keeping because it is both sound and up to date." The central reason for recommending this book is that it treats objectively the widened application of financial incentives without departing from the principles that have emerged from the experience of executives and industrial engineers.

Mr. Louden opens his discussion with a brief history of wage incentives in which he sets forth the evils associated with their misuse. Somewhat unconvincingly he associates the origin of these weaknesses with an "over demand for the Taylor system." Whatever their basic cause, these evils are real and have caused much damage to industrial management. They may be summarized as follows:

1. Failure to have supervision play a major role in the program and failure to train supervisors in the fundamentals of industrial engineering.
2. Failure to enlist cooperation of employees and to gain their full understanding and confidence.
3. Failure to recognize the caliber of men and the competency required to perform this work.
4. Failure to establish standard procedures and policies governing industrial engineering.
5. Failure to realize that industrial engineering consists of more than taking time studies and installing a wage incentive system.
6. Failure to guarantee standards once established against change unless there is a change in method, equipment, or specification.
7. Establishment of a ceiling on incentive earnings above which an employee must not go or the standard will be cut.
8. Failure to analyze and establish standards for materials and spoilage.
9. Failure to establish rigid specifications and quality standards.
10. Failure to maintain properly and regularly measured standards and wage incentive installations once they are established.

Mr. Louden's treatment is sound because he understands that the ***management foundation*** for a successful incentive installation is more important than the ***plan***. Consequently, he stresses the necessity of establishing and maintaining operating standards and of setting of consistent output standards related specifically to controlled operating conditions. Not new in any sense, this part of the book is a reminder not to flirt with schemes that are unsound nor to emphasize plans at the expense of management fundamentals. To the mathematics of the commonly used plans he devotes little attention, but presents a balanced analysis of the basis without which any plan is unlikely to succeed.

In discussing the use of plant wide incentives, as recommended by the War Production Board, the author grants that their introduction may have been expedient to boost war-time production in a single-product plant. For the long pull, he argues, soundly I think, that in the absence of detailed standard data production must be measured against standards that represent either past performance or judgment and therefore are untrustworthy for use as an incentive base.

It is his conclusion that "any basis other than careful measurement by time study is suitable only for the establishment of goals, not standards." The remaining content of this useful book deals with the development of an hourly rate structure, the relationship between incentives and motion study, time study standards, budget and cost controls, worker's resistance to wage incentives, the general management policies involved, the five fundamental types of wage incentive plans and the policies necessary to insure their fair and equitable administration. Subsequently he deals with such difficult aspects of wage administration as changing of the requirements and "creeping changes" in operation, the payment of incentives to supervisors, the control of quality in incentive installations and incentives for waste reduction, incentives for operations that are machine-paced, and the participation of employees and union leaders.

Those who admire piece work because of its simplicity may differ with Mr. Louden's judgment concerning this venerable but common form of incentive payment. Whatever detailed criticisms may be directed at this little treatise, readers will find it thoughtful and helpful.

C. CANBY BALDERSTON

Wharton School of Finance & Commerce

Budgeting for Management Control. By Floyd H. Rowland and William H. Harr, Harper & Brothers, New York, 1945, pp. 370. $4.00.

Mr. Rowland has attempted to lay out in detail a program by which the management of any enterprise can obtain a sure control of its operations. He has made a good job of his undertaking. His book provides a check list of essential steps. Every management would be improved by checking its own scheme of control against this list. As to each item it should say, "Has this point been adequately developed?" If so, are the facts properly written up? If not, steps should be taken to cover the item and record the results as a requisite component of the complete pattern. Only when it has all been written down in black and white will it be possible to see whether it forecasts a successful outcome for the business. If so, we know where we are going and how to get there. Day by day, month by month, year by year, we can check to see that we are not getting off the beam. If we do not take the time and the pains to write out the whole program and have a look at it to see whether we have a coordinated and practical plan for operating our business successfully, we are just navigating "by guess and by God."

Mr. Rowland has summed up the whole essence of his book in one sentence (p. 119) "It is safe to say that any plan which cannot be made to work out satisfactorily on paper will seldom achieve this result later in actual operation."

The precise treatment of each factor which Mr. Rowland advocates for his mythical XYZ Company may or may not be adaptable in whole or in part for any other business. One may even disagree with many of his proposals but still find inspira-

tion in the book for ways and means to solve his own problems. The important point is that there must be a precise way for pre-planning every factor in every business. Without such synchronized plans a business is like a modern orchestra in which each player seems to feel at liberty to improvise his own part on the inspiration of the moment. We need more harmony and less jazz in business.

At the risk of appearing hypercritical, by picking on a point in Mr. Rowland's book which has little relative importance, I want to take exception to his adoption of the title "Director" as an appropriate designation for the head of each of the main divisions of a business organization. If the man in such a position is also a director of the corporation, well and good. If not, why have two kinds of directors in one organization? In English practice, the managing director is the member of the board of directors who actually manages the business. As a result, upon one occasion, the so called budget director of an American corporation was greatly embarrassed by the reception he was accorded by English business men, who misjudged his weight in the policy making counsels of his company. The head of a division of an organization, who reports directly to the president would seem to deserve to rank as a corporate officer, whether he rates a place on the board of directors or not. If he is not the corporate secretary or treasurer, then surely he should be a vice president.

CHARLES C. JAMES

New York

Making of Scientific Management—Thirteen Pioneers. By L. Urwick and E. F. L. Brech, London Management Publication Trust, London, 1945, pp. 196.

Where are we headed industrially? What attitudes and methods do we employ and do we need? Has there been any advance in our comprehension of industrial processes? Is work only a necessary evil or has it a creative role in personal life and community experience? Questions such as these rise to mind whenever we can separate ourselves long enough from the daily tasks to look about us reflectively. Questions such as these are invited by a reading of this heartening book which shows the management movement in terms of the biographical story of the men and women who formed and shaped it. For here is set forth as in no other setting as yet available a discriminating statement of the gains which have been brought to our understanding of the whole social process of management by some of its most significant practitioners and theorists.

Perhaps in no other way than by this kind of personalized story is it possible to enable a wide public to understand how the figures of the management movement have in very truth made one of the most important contributions in the last fifty years to the humanizing of the new technology. Messrs. Urwick and Brech are to be congratulated on conveying by the personal narratives of these devoted men and women a vivid sense of how industrial problems, both in technique and in human relations, have to be attacked if industry is truly and fully to serve humanity. As soon as this book can be made available for American distribution, all teachers and students of management will find it a spirited source of stimulation about the social impact of the management movement.

ORDWAY TEAD

Human Relations in Industry. By B. B. Gardner, Richard D. Irwin, Inc., Chicago, 1945, pp. 307. $3.00.

Although this book is designed primarily for use as a college text on employee relations, business men will find it interesting and worth-while reading, if for no other reason than as an especially well drawn picture of the social structure and activity of an industrial plant as they appear to an observant and understanding student of the situation.

The way in which human relations enter into nearly every industrial situation and problem is clearly described. In developing the central theme of the factory as a social system, Dr. Gardner explains the factors which give individuals status in this society, the forces which break the entire group into smaller social units, and the human relations aspects of the lines of communication and inter-relationship among departments and between supervisory levels.

Business men will find of particular interest the sections on unions and wages. Some will take exception to the significant position accorded the union in the social structure of the factory and to the statements on the lack of power and status of union officials in the eyes of the workers.

Why wages and output are not simple economic problems is well explained in the discussion of the way the human and social factors are involved in the concept of wages, wage levels, merit rating, piece rates, time studies, and restriction of output.

Staff department executives and personnel will find here an objective description of the forces complicating their relationships with line supervisors and workers. The author might well have included the planning or production control department in this list of staff departments.

Dr. Gardner gives liberal support to his discussion with interesting and pointed illustrations drawn from his experiences in personnel research at the Hawthorne Plant of Western Electric and elsewhere.

Those who look here for a precisely diagrammed solution to the problems which the book raises will be disappointed. This is not to say that Dr. Gardner has failed in his task. He makes many worthwhile suggestions both directly and by implication throughout the book and particularly in the final chapters on Cooperation and Understanding Social Structure. The answers, as those who have faced these situations know, are not so much a matter of universally applicable formulae as of the persons, attitudes, and conditions in the individual plant.

HAROLD B. BAKER

School of Business, Indiana University

Principles of Guidance. By Arthur J. Jones, McGraw-Hill Book Company, Inc., New York, 1945, pages xx, 592, $3.50.

This is the third revision of a text which has been widely used by teachers, guidance counselors and school administrators. It was written by an educator for educators. However it does contain some useful material for the industrial personnel worker and executive. Its clear and complete exposition of the principles of guidance and the helpful light it throws on the basic assumptions involved make it a good source of reference for the industrial personnel counselor.

One of the responsibilities of the industrial personnel worker is to act as a link between the educational institution and the industrial or commercial organization. A background knowledge, therefore, of the scope and direction of the guidance function in schools is a fundamental requisite.

The industrial personnel worker, and indeed supervisors and foremen, should be able to apply some of the principles and techniques set forth. Too few executives realize or practice their function or guidance, which the author of this text sets forth as "an essential element in dealing with individuals." It seems to me to be as valid for industry as it is for education to recognize and practice one of the basic assumptions as given on page 101:

"The purpose of guidance is to develop the ability of each individual to take care of himself, to stand on his own feet and not be dependent upon others. It is recognized that this is a gradual process and involves placing upon each individual only as much responsibility at any time as he can assume with a fair degree of probable success, and that may mean very little for any person. But the end is clear—not continued reliance upon external help, but more or less complete independence, dependent upon the ability of each individual to stand alone."

The chapter on "Personality Estimates and Interest Inventories" would be of value to an employment interviewer as these factors are gaining increased recognition in considering candidates for jobs.

Chapter XV on methods covers counseling, interviewing, psychotherapy and group guidance and contains much useful material for the student of human relations.

The chapter on "Guidance of Out-of-School Youth" could be read with profit by all those with an intelligent interest in preparing the nation's youth for useful and satisfying work.

There is a new chapter on the guidance of Negro youth which emphasizes the great need of Negro youth for organized guidance because of the unusual handicaps under which they are living. There is useful material in this chapter for the employer of Negros as it would be desirable for many supervisors to acquire a larger sociological background for this purpose.

EVELYN BUCKLEY.

Management and Human Relations Consultant, New York

AN EXCHANGE OF LETTERS

In the April-June, 1945, issue of Advanced Management there appears an interesting and instructive article, *Application of Burden in Unit Costs*, by H. P. Dutton. I must confess, however, that when I began to read the article I was shocked by the unorthodox statements and treatment of accounts. I very nearly did not finish the article but fortunately something impelled me to do so. In the end I was satisfied although there are certain points which I think should receive more emphasis than was accorded them by Mr. Dutton, and some, perhaps, less emphasis.

It is unquestionably true that some products under orthodox accounting treatment show loss but do nevertheless return more than their prime or "out of pocket" costs thus contributing toward the payment of overhead costs. At the same time, however, the fact cannot be escaped that the cost of such products is not comprised solely of prime costs; some amounts for overhead, perhaps not easily determined, are also part of the cost. While the author does not claim that prime costs represent the true value of inventory, he does presume that these costs are recoverable through sale and that burden, by implication, is not. Actually, there is no absolute advance assurance that prime costs, or any costs, will be recoverable.

Further confusion arises in certain definitions. It is hard to believe that Mr. Dutton really means to say, "The only true measure of the value of an inventory is what it will bring if sold, less the costs of processing to the point of sale." Sales less costs are profit; this definition of inventory value is the profit to be made by sale. There is no question that the *purpose* of inventory is to be converted at a profit but purpose is not *value*.

In the same paragraph from which the above quotation is taken there appears the following: "The principal purpose of the inventory figure in the balance sheet is less to show values than changes of value which will affect profits for the period." It seems to me that there is misunderstanding of the very nature of the balance sheet and at the same time failure to recall that changes of value affecting profits are reflected in another financial document, the Profit and Loss Statement.

Such unusual statements and suggestions cast a great doubt upon the validity of the whole procedure recommended by Mr. Dutton. This is unfortunate because, as stated in the opening of this letter, the article is interesting and instructive. It is not unlikely that readers might be antagonized and prejudiced against the ultimate conclusions.

These conclusions are based upon certain assumptions which, I think, do not in the article receive the attention they deserve. The conclusions and effects of the procedure are valid only when certain conditions obtain. Perhaps the most important of these is that there already be a plant investment that can be recovered to any substantial extent only through operations. If one were careless in the application of the principles propounded by Mr. Dutton, one might be led into an unwise investment in plant because of the notion that the principal need is to recover prime costs and that any receipt above them is good. It should be emphasized, instead, that Mr. Dutton's suggestion is suitable only where the die is already cast and the problem is one of making the best of a bad bargain. There is danger that one may take such a stand for the regular operation of a business.

Is there not also the danger that the so-simple cost accounting may make us lazy? Since the costs that are allocated directly are the easily discerned prime costs we are apt to find it altogether too easy to charge item after item to overhead rather than go to some trouble to ascertain a fair and reasonable distribution between products. It is commonly remarked, and Mr. Dutton too has done so, that the ratio of burden to direct costs has risen greatly over the years. This is largely because of the division of labor which has resulted in more efficient operations. It seems to me that the very size of the unallocated costs should create in us an urge to reduce this amount, not by any arbitrary rules of distribution, but by the application of reason to the facts.

While I approve the type of analysis offered by Mr. Dutton I think that it should not be used to the exclusion of otherwise acceptable cost accounting practices. Particularly is this so when considering a long-range policy which involves the replacement of equipment for the production of items which have not been contributing their share toward the meeting of overhead costs.

There is another very real danger to total business profits in competitive lines. Whereas one company may offer a portion of its output at below total cost, though above prime cost, another company in the field may apply the same practice to other items in the line. Carried to its ultimate conclusion, this idea would result in competitive prices yielding no profit, and, indeed, even losses in the aggregate.

E. M. WALES.

Instructor in Economics, California Institute of Technology

REJOINDER

I read with interest Professor Wales' comment on the article "Application of Burden in Unit Costs," and was glad to know that in the main he agrees with its conclusions. Actually, the shift from what might be called the historical base of costing to the marginal cost concept is more a way of looking at the facts than any legerdemain performed with the facts themselves.

There is, of course, no way of escaping indirect expenses. The argument is not concerning the need, but the manner, of accounting for them. Business expenses divide themselves broadly into two kinds. One kind, as material costs, can generally be controlled so as to vary approximately with volume. We may, without too much violence, expand the old accounting term "prime costs" to include as direct or prime costs, not only the customary direct labor and materials, but any expense or part of an expense which mathematical analysis or plain business judgment show can be stopped if we do not take business, or will be increased as volume increases.

In addition to those expenses which are controllable, proportional or "direct," there is the constant need to commit oneself to others from which it is impracticable to withdraw under ordinary circumstances.*

The judgment on the basis of which such commit-

* In an ultimate sense all expenses are roughly proportional to volume. If one buys a machine and it does not pay, one will not replace it. If the business as a whole is ill conceived, it will run its course, use up investment and cease.

ments are made is of extreme importance. What I deem to be the correct form of comparison is shown in Fig. 2. In the last analysis all financial choices tend to follow this pattern. One notes that Fig. 2 is a marginal cost comparison. No attempt is made to recover past investments through a depreciation rate or the like, since the whole machine cost enters the initial comparison, although, it would be reckless not to review the history of such investments before risking new money.

So far as the allocation of burden represents an attempt to trace indirect costs back to their causal factors it is mainly irrelevant. Many such costs are joint costs, that is, they apply to groups or to the whole group of products. Such costs are not traceable to one product. The only procedure which has any logic is, having committed oneself to such a cost or investment, to try to find that combined use of the facility which will yield the greatest total net return; that is, return above marginal costs.

If one contemplates hiring a comptroller he does not ask himself, "What effect will the new expense have on the overhead rate"? He sets up, in effect, a comparison essentially of the type of Fig. 2 and estimates the added benefits against the added costs. If one figures the cost of adding a second shift he need not trace the saving as it eventually appears in over-absorbed burden, he can get the same result as accurately and much more directly by reckoning the added cost against the added yield. The same is true, if the proposal is that of utilizing off-peak capacity by taking business below the average or "historical" cost. Such a proposal is subject to qualifications discussed in the article, but if all factors are considered, the marginal cost comparison gives the right answer.

In short, we do not abandon a burden rate, but we should spend the least time in speculating on the incidence of expense that is water over the dam, and instead, concentrate on trying to find that combination of existing facilities which promises to yield the greatest total return. Tomorrow the combination may be different, but that is business, and will be met by tomorrow's analysis.

One sees just about the same scenery whether one looks out of the back window or the windshield but driving is easier when one looks ahead. The weight of custom has created a number of important exceptions to the general statement that costs do not determine prices. Prices regulated by law usually stipulate a fair return on the investment and thus base back to historical costs, and there are other examples of a cost-plus basis which require the retention of existing methods of allocation of expense. Income taxes specify the permissible rate of depreciation. Whether these arrangements for pricing are justified in the abstract involves social as well as economic considerations which I have not attempted to consider. Because they are often determining in the practical case, as well as because it is wise not to let go the old before one has a firm hold on the new, such reports as Fig. 4 will probably be for some time additions to, rather than substitutes for, the usual cost accounts. We retain our customary labor-cost burden rate and apply it to arrive at a balance-sheet valuation of inventory but the inconvenience of shifting to the basis discussed in the article would be temporary and minor.

Professor Wales speaks of "so-simple costs." I do not regard marginal costs as simple, although, the simplification of burden computations can result in reducing routine clerical operations. It is much harder to set up alternatives for each situation, to estimate correctly the marginal cost situation, than that it is to accept a single figure such as the conventional product cost, carried out to the fifth decimal place. The extra trouble is justified by the greater assurance of a right answer.

As to inventory valuation, the statement Professor Wales challenges will read better if one inserts the italicized phrase so that the sentence reads as follows: "The only true value of an inventory is what it will bring if sold, less the costs, *still to be incurred*, of processing to the point of sale." To me, the underscored phrase was implied in the context but the insertion will clarify the meaning. Any estimate of the value of an inventory is, of course, hypothetical up to the point of sale, for it rests on such assumptions as that the business will run as usual, that the price of raw materials will not change, and the like.

In my preoccupation with the valuation of inventory I probably handled the balance sheet a bit cavalierly; it does serve important purposes beside "changes of value." However, I think, that point may be conceded and it will still be advantageous, since any valuation of inventory before sale is contingent and in a sense conventional rather than real, to use a prime cost basis of valuation rather than a cost including overhead. A distortion occurs which affects the accuracy of the balance sheet, whether viewed from the operating standpoint of changes or the investors' and creditors' viewpoint, when one treats a fixed expense

as if it were variable and applies it as a value. It is sounder mathematically to treat fixed expenses as a deduction from profit. The balance sheet is more conservative when this is done and the income statement, which is often particularly sensitive to inventory fluctuations, will be more accurate.

Professor Wales fears the loss of control of expenses if one abandons the application of burden. Spreading burden, however, conscientiously, over each part and product does not control expense; it conceals it. The proper control of expense is a budget which compares what the expense is, with what it ought to be. Burden rates do not enter into budgets, or should not.

I recognize that the marginal cost basis of estimating has some very marked dangers until one adjusts his constants to the new base; the article mentions the dangers. I recognize, also, that this basis of accounting may put a premium on ingenious, if unconventional, utilization of spare capacity and worry the man who dislikes innovations.

But business has not waited for the accountant to feel its way to the maximum utilization of capacity as the drugstore demonstrates. It is time the accountant also wakes up to the facts of life.

I am sure Professor Wales will excuse me if, in attempting to answer the points he raises, I have argued some points with which he doubtless agrees, for the benefit of other possible readers of this reply.

H. P. DUTTON.

Chairman, Department of Industrial Engineering, Illinois Institute of Technology; Consultant in Management

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2. To bring about a better understanding of the mutual interests of government, management, investors, labor and the public in improved management.

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